Keyboard

keyboardmag.com

STAGE SKILLS • STUDIO SMARTS

HAMMOND SK1-73

Organ, meet Stage Piano

IZOTOPE ALLOY 2

Advanced Channel Strip, Beginner Price

VI LABS TRUE KEYS

There's a New Premium Soft Piano on the Block

IVAN NEVILLE

ON THE FUNK

CHVRCHES ON SYNTH-POP SUCCESS

DAVE SMITH INSTRUMENTS

PROPHET 12

THE BEST HARDWARE SYNTH *EVER*?

5 WAYS TO PLAY LIKE ALLEN TOUSSAINT

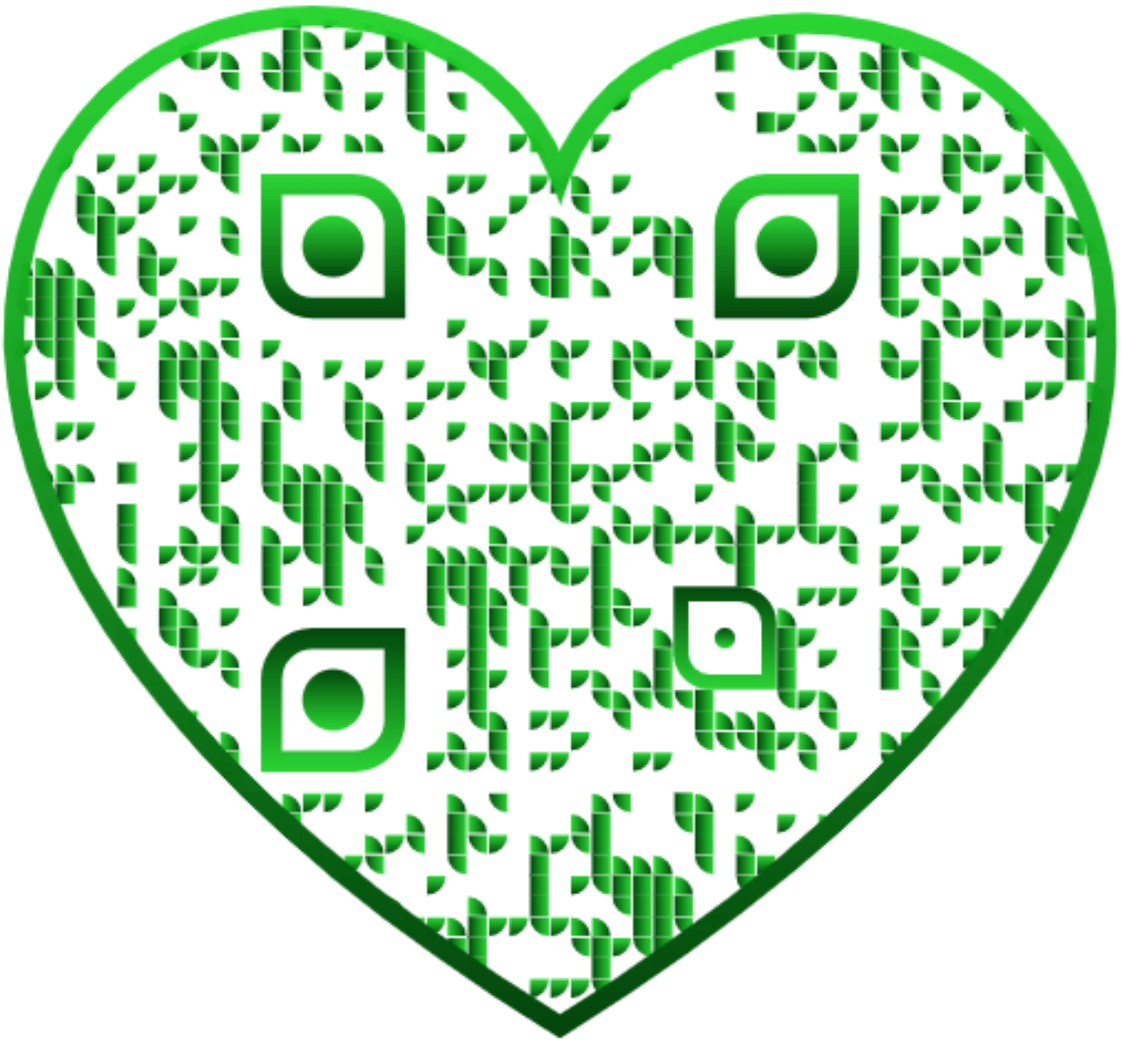
LATIN LEFT HAND LICKS FROM MICHEL CAMILO

MODAL SOLOING MASTERY BY JEFF LORBER

NewBay Media

10.2013 | $5.99

A MUSIC PLAYER PUBLICATION



PriviA PRO
PX-5S
Keyboard
KEYBUY
AWARD
"Riveting.
It's just amazing.
Don't buy a new stage piano
until you try this one."
-Keyboard Magazine
AIR
SOUND SOURCE
www.casiomusicgear.com
GO BEYOND SOUND
CASIO

Electro-Voice

TAKE CONTROL.

ZLX

VISUAL CONTROL & MONITORING

ZLX is available in 12″ and 15″ versions.
Passive models also available.

New ZLX portable powered loudspeakers stand apart with the most complete, innovative and user-friendly package of features in their class, giving you more control over your sound to ensure your audience connects with your creative moment, whatever your gig. **www.electrovoice.com/zlx**

- **PRECISION** – DSP with LCD and application/location presets
- **POWER** – 1000 W custom-built 2-channel/biamped Class-D amplifier
- **PERFORMANCE** – EV-engineered components for superior sound
- **PORTABILITY** – Unique hi/lo grip handles and lightweight construction
- **PRESENCE** – Stunning enclosure design

©2013 Bosch Security Systems, Inc.

Can a music program create professional, real-sounding arrangements and solos for your songs from only a chord progression?

"Are you sure it is legal to have this much fun?" "I'm looking for those **perfect band mates** and I just discovered they live in a box." "The soloist sounds amazingly like **real people** improvising!" "The program **sounds so much better** with **RealTracks**… A thousand times, Thank You!" "Band-in-a-Box is some of the **most fun** you can have with a computer." "I can load my **MP3** in and see the chords play on the screen." "My buddy and I sat around last Sunday night just jammin' away…" "As an old BE-BOPPER circa late 40s, most of the cats I played with are dead and gone." "Band-in-a-Box has made me a **much better player.**" "Can't say enough good about your products. You obviously understand our needs exactly." "BB makes it so easy to quickly build an arrangement for composing." "Thanks to BB I can still swing with the help of the **fabulous cats** living inside BB." "Band-in-a-Box was the solution to an old fustration: being a musician. Now I am a musician." "The ease and "**RealTracks** is by far the easiest way to make **high-quality** background tracks." "**Band-in-a-Box** is the **holy grail** for accompaniment software." "This is so much fun." "I'm speechless." "Who says you can't buy happiness." "This is absolutely a must-have item." "**Band-in-a-Box** is now on a whole other level of sophistication." "A giant leap forward""Keep the **RealTracks** coming!" "It blows my mind." "**RealTracks** add a whole new dimension of realism." "I was absolutely **blown away** at the quality of **Band-in-a-Box**." "Your **Band-in-a-Box** program is **extraordinary!**" "Your product is **AWESOME! THANKS**" "A fantastic leap forward." "Un. Believable" "I can't believe how fast I can generate **RealTracks** and renders with the new version." "They've **outdone themselves** this time, and I'll be singing the praises of **Band-in-a-Box** every chance I get." "This new musical concept you have created is nothing short of evolutionary. If it were a living creature, it would be a whole new species." "I'm awestruck." "Just when you think **Band-in-a-Box** is as **"Brilliant!"** "All of the new instruments are just **smashing.**" "I must say, the pedal steel is perhaps the greatest accomplishment in the history of this brilliant program.""The RealTracks are **fantastic** and provide **great inspiration** for creativity." "This is a great gift to jazz musicians, educators, and singers." "Oh, wow. **This changes everything.**" "It's **stunning.**" "Thanks for a superbly useful piece of software." "I tried with many audio files and the chord detection is **amazingly accurate!**" "This is absolutely a must-have item." "Wow, I'm learning tunes fast with help of your Audio Chord Wizard." "It finds the exact chords to the song… perfectly." "Wow!" **"I am blown away!** The jazz/swing RealTracks stuff is amazing." **"Awesome."** "Is this cool or what?" "I'm in seventh heaven" "You won't regret it (and if you do, there's the **30 day money back guarantee**)." "I never thought I'd see the day this was possible." "I know it's been said before, but you guys are **incredible**." "This is **gonna set the world on fire!**" "I'm so stoked about how good everything sounds I can hardly stand it." "This is just killer." "Amazing, simply amazing." "[RealDrums] is really awesome sounding. Good work!" "Many kudos all around." "You never cease to **amaze** me. You got it." **"Wow and Double Wow."** "The **RealTracks** and **RealDrums** sound awesome." "Long live PG Music!" "Mind bending." "I am frankly amazed at most of the styles." "I am absolutely ***Kudos*** to you and your team!" "First time I did a song with **Band-in-a-Box**, **I couldn't believe it!**" "I use it in the classroom and also in creating music in my studio. It is a fantastic piece of music software to own. I am greatly impressed." "I am very impressed with your fantasic ***improvisational*** program." "It's a great educational tool." **"Awesome software at a fantastic price!"**

BAND-IN-A-BOX®

2013 for Windows® & Macintosh® with RealTracks

Type in the chords to any song using standard chord symbols like C, Fm7 or Gm7b5/Db; choose a style and Band-in-a-Box does the rest… Generating a professional sounding arrangement of bass, drums, piano, guitar, strings and more. NOW using RealTracks—actual recordings of professional studio musicians!

PG music

Download Now from $129 USD

PG Music Inc. • www.pgmusic.com • 1-888-PG-MUSIC

Our Customers Think So.

The all new Prophet 12 from Dave Smith Instruments. The legacy continues.

Visit davesmithinstruments.com for details.

Made in SF San Francisco

CONTENTS

OCTOBER 2013

Keyboard
STAGE SKILLS · STUDIO SMARTS

TALK

10 Voices from the *Keyboard* community.

NEW GEAR

12 Our monthly wrap-up of exciting new product releases from keyboard, recording, pro audio, and music software makers.

HEAR

JOSHUA TIMMERMANS

14 **LEGENDS**
Scion of New Orleans music dynasty **Ivan Neville** has the funk in his very DNA. Here how he keeps the family groove in his own band, Dumpstaphunk.

18 **BREAKOUTS**
Scotland synth-pop sensations **Chvrches** have rocketed from online secret for those in the know to selling out U.S. tours and opening for Depeche Mode. They discuss live and studio gear and technique in this interview.

20 **PLAYLIST**
What we're listening to this month.

PLAY

22 **5 WAYS**
Jeff Kazee on five ways to play like Allen Toussaint

26 **JAZZ**
Geoffrey Keezer on turning **transcriptions into original licks**

28 **LATIN**
Exercises for **Left Hand Independence** from Latin Jazz star Michel Camilo

30 **COLD FUSION**
Jeff Lorber on **modal** soloing concepts for jazz-fusion

KNOW

36 **PIANO**
Discover the synth inside your acoustic piano in this **prepared piano primer**

40 **THE ART OF SYNTH SOLOING**
Get **Jordan Rudess**' signature lead sound

42 **BACKTRACK**
More ways to use **backing tracks** in live gigs

44 **DANCE**
Recreate the **Roland TR-808 kick drum** sound with soft synths

REVIEW

46 **SYNTH**
Dave Smith Instruments **Prophet 12**

52 **ORGAN**
Hammond **SK1-73**

54 **VIRTUAL PIANO**
VI Labs **True Keys**

56 **STANDS**
Jaspers keyboard stand and rack systems

60 **AUDIO PLUG-IN**
iZotope **Alloy 2**

62 **APP**
Icegear **Xenon**

CODA

66 Five things **Kevin Antunes** has learned about **Producing Live Concerts**

Online Now!

TouchKeys: sensors that add X/Y control to every key on your keyboard.

keyboardmag.com/october2013

KEYBOARD (ISSN 0730-0158) is published monthly by NewBay Media, LLC 1111 Bayhill Drive, Suite 125, San Bruno, CA 94066.

All material published in KEYBOARD is copyrighted © 2013 by NewBay Media. All rights reserved. Reproduction of material appearing in KEYBOARD is forbidden without permission. KEYBOARD is a registered trademark of NewBay Media.

Periodicals Postage Paid at San Bruno, CA and at additional mailing offices. POSTMASTER: Send address changes to KEYBOARD P.O. Box 9158, Lowell, MA 01853. Canada Post: Publications Mail Agreement #40612608. Canada Returns to be sent to Bleuchip International, P.O. Box 25542, London, ON N6C 6B2.

Download the *NEW iPad App*—

Keyboard Magazine

Go to **www.keyboardmag.com/ipad**

Keyboard Magazine is NOW AVAILABLE ON THE iPAD!

Get the **NEW** and **IMPROVED** **Keyboard Magazine** app today!

You'll have lessons penned by music's brightest stars, hands-on workshops that help players master the latest tools, the most heavily-cited equipment reviews in the business, and much more right at your fingertips. *Keyboard* is the only place to learn which notes to play and which knobs to turn—empowering musicians of all styles and skill levels to use music technology the way they want to.

To download the app for FREE go to www.keyboardmag.com/ipad

NEW!

nord lead 4

performance synthesizer

With innovative new live features, advanced layering and synchronization options, new filter simulations and powerful effects, the new Nord Lead 4 is a flexible synth that's just as brilliant on stage as in your studio.

OSCILLATE! Nord Lead 4 is a virtual analog synthesizer with 2 oscillators per voice and 4 slots. New features include Wavetables with formants, Hard/Soft Sync, Noise-generator with dedicated filter and a true Unison-mode for meaty leads!

MODULATE! 2 LFOs and a Modulation Envelope can control anything from filters to effects and even offer very flexible triggering options.

FILTER! Nord Lead 4 features 7 filter types including an extremely steep 48 dB low-pass filter, two amazing simulations of the legendary transistor and diode ladder-filters and a powerful drive for distorting the sound internally in the filter.

MUTILATE! Color your sounds with simulated tube amp distortion, sample-rate reduction, comb-filtering, a talk box-effect and a compressor. Each slot also features a tweakable delay with analog-mode plus reverb.

SYNCHRONIZE! Arpeggiators, LFOs and delays can all be synchronized to the internal Master Clock or an external sequencer.

IMPROVISE! The flexible Morph functionality offers unprecedented control over your sound while playing. Change multiple parameters at once - gradually with the mod wheel or velocity - or instantaneously with the powerful new Impulse Morph buttons.

Listen to sound demos:
nordkeyboards.com/nordlead4

Nord Lead 4 - 49-key synth version

Nord Lead 4R - Rack mountable table-top version

nord®

Handmade in Sweden by Clavia DMI AB

Follow us:
facebook.com/nordkeyboards

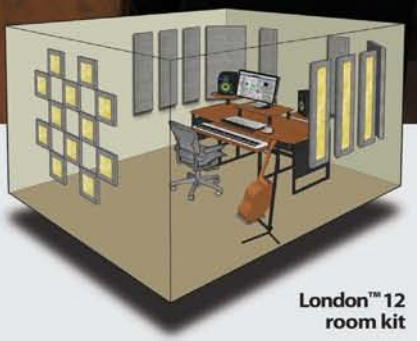
american music & sound AM&S
A division of Jam Industries Ltd

For more information contact
info@AmericanMusicAndSound.com

Clean up your room!

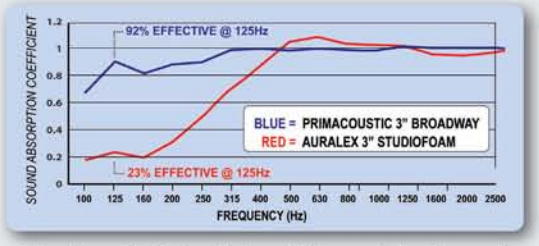
The single most important thing you can do to improve the sound of your recordings is to address the acoustics in your room... and Primacoustic makes it easy.

Start with your choice of Broadway™ panels or one of our easy-to-install London room kits. Then add MaxTrap corner traps and Stratus ceiling clouds to suit. Primacoustic has all the tools you need to get your recording space up and working quickly and affordably — with uncompromising quality. Compared to foam, Primacoustic delivers nearly 500% greater absorption in the critical bass region. This delivers a balanced mix that translates properly when you play your recordings on other systems.



London™ 12 room kit

- A Stratus™ ceiling clouds
- B Broadway™ Broadband panels
- C MaxTrap™ corner bass traps
- D Easy-to-mount impaler system
- E Broadway™ Control Columns
- F Recoil™ Stabilizers



Tests performed by Riverbank Labs on 3" Primacoustic Broadway panels and common acoustic foam. Both absorb high frequencies, but as sound shifts to bass, the foam stops working.

"I am not a handy guy, believe me when I tell you how easy it is to install. Now my room sounds great."

~ Rob Wells
(Backstreet Boys, Cyndi Lauper, Mika, Justin Bieber, Selena Gomez)

Simple, modular and affordable – Primacoustic delivers spectacular performance for cleaner, more professional sounding results every time.

Clean up your room... with Primacoustic!

PRIMACOUSTIC®

A division of Radial Engineering Ltd. - 1588 Kebet Way, Port Coquitlam BC V3C 5M5

www.primacoustic.com

Specifications and apearance are subject to change without notice

Keyboard
STAGE SKILLS · STUDIO SMARTS

VOL. 39, NO. 10 #451 OCTOBER 2013

EDITORIAL DIRECTOR: Michael Molenda mmolenda@nbmedia.com
EDITOR IN CHIEF: Stephen Fortner sfortner@nbmedia.com
MANAGING EDITOR: Debbie Greenberg dgreenberg@nbmedia.com
EDITOR AT LARGE: Jon Regen
SENIOR CORRESPONDENTS: Jim Aikin, Craig Anderton, David Battino, Tom Brislin, Michael Gallant, Robbie Gennet, Scott Healy, Ken Hughes, Peter Kirn, John Krogh, Richard Leiter, Mike McKnight, Tony Orant, Francis Preve, Mitchell Sigman
EDITORIAL ASSISTANT: Grace Larkin
ART DIRECTOR: Damien Castaneda dcastaneda@nbmedia.com
MUSIC COPYIST: Matt Beck
PRODUCTION MANAGER: Amy Santana
PUBLISHER: Joe Perry jperry@nbmedia.com, 212.378.0464
ADVERTISING DIRECTOR, NORTHWEST, MIDWEST, & NEW BUSINESS DEV.: Greg Sutton gsutton@nbmedia.com, 925.425.9967
ADVERTISING DIRECTOR, SOUTHWEST & ASIA: Mari Deetz mdeetz@musicplayer.com, 650.238.0344
ADVERTISING DIRECTOR, EAST COAST & EUROPE: Jeff Donnenwerth jdonnenwerth@nbmedia.com, 770.643.1425
SPECIALTY SALES ASSOCIATE: Michelle Eigan meigan@nbmedia.com, 650.238.0325

THE NEWBAY MUSIC GROUP

VICE PRESIDENT PUBLISHING DIRECTOR: Bill Amstutz
GROUP PUBLISHER: Bob Ziltz
EDITORIAL DIRECTOR: Brad Tolinski
SENIOR FINANCIAL ANALYST: Bob Jenkins
PRODUCTION DEPARTMENT MANAGER: Beatrice Kim
DIRECTOR OF MARKETING: Josh Bernstein
MOTION GRAPHICS DESIGNER: Tim Tsuruda
SYSTEMS ENGINEER: Bill Brooks
CONSUMER MARKETING DIRECTOR: Meg Estevez
CONSUMER MARKETING COORDINATOR: Dominique Rennell
FULFILLMENT COORDINATOR: Ulises Cabrera
OFFICES SERVICES COORDINATOR: Mara Hampson

NEWBAY MEDIA CORPORATE

PRESIDENT & CEO: Steve Palm
CHIEF FINANCIAL OFFICER: Paul Mastronardi
CONTROLLER: Jack Liedke
VICE PRESIDENT, DIGITAL MEDIA: Robert Ames
VICE PRESIDENT, AUDIENCE DEVELOPMENT: Denise Robbins
VICE PRESIDENT, CONTENT & MARKETING: Anthony Savona
IT DIRECTOR: Anthony Verbanic
VICE PRESIDENT, HUMAN RESOURCES: Ray Vollmer

LIST RENTAL
914.925.2449
danny.grubert@lakegroupmedia.com

REPRINTS AND PERMISSIONS
For article reprints please contact our reprint coordinator at Wright's Reprints: 877.652.5295

SUBSCRIPTION QUESTIONS?
800-289-9919 (in the U.S. only) 978-667-0364
keyboardmag@computerfulfi llment.com
Keyboard Magazine, Box 9158, Lowell, MA 01853

Find a back issue
800-289-9919 or 978-667-0364
keyboardmag@computerfulfillment.com
Publisher assumes no responsibility for return of unsolicited manuscripts, photos, or artwork.

NewBay Media
BPA WORLDWIDE CONSUMER

Follow us on

Sweetwater®

Music Instruments & Pro Audio

EXPERT ADVICE, PROFESSIONAL SERVICE, AND FLEXIBLE BUYING OPTIONS

- Professional Sales Engineers
- Factory-authorized Service
- The Free 2-year Warranty**
- Industry-standard Tech Support
- Best Online Resources
- Fast, Free Shipping

(800) 222-4700 Sweetwater.com

24 MONTHS SPECIAL FINANCING AVAILABLE

ON OVER 80+ SELECT BRANDS!

WITH USE OF YOUR SWEETWATER MUSICIAN'S ALL ACCESS PLATINUM CARD, THROUGH OCTOBER 31, 2013*

*Subject to credit approval. Minimum monthly payments required. Call your Sweetwater Sales Engineer for details or visit Sweetwater.com/financing.
**Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit Sweetwater.com/warranty for complete details.

Editor's Note

Once upon a time, there was a wise and benevolent king. This king was also a wizard, and he invented magical machines that brought great joy to all who used them. With the help of the royal treasurer—who understood the logistics and economics of constructing the machines en masse—the king was able to distribute his creations all across the realm.

One day the king departed this mortal coil for the afterlife, as all men do. This saddened both the princess and her stepmother the queen, who both loved the king very much and wanted to protect and preserve his legacy. All the subjects wondered what would become of his inventions. The royal treasurer assured them that the palace would continue to build new creations as the king would have wanted. For many years, the palace did just that, and still does.

The princess spent those years learning every detail of her father's work, poring over scrolls, manuscripts, and old inventions. One day, she proclaimed, "We shall build a hall in the village square, where the king's genius will be preserved for all to see and learn from!" Many of the subjects rallied around her, and many saw her as the living embodiment of the king's wisdom.

After a time, though, the palace began to disagree, saying instead, "The scribes in the monastery atop the hill are best able to look after precious scrolls. That is the place for the legacy of a king." The kingdom became divided, with those who supported the palace pointing out how safe and prestigious the monastery was, and the princess' followers worrying that after all her hard work, the treasurer and queen were conspiring to banish her.

Like all fairy tales, this is a simplistic picture—if it's even a picture *of* anything at all. We also don't know the ending, but here's one that, in the event the king's scrolls do wind up at the monastery, might reunite the kingdom. Suppose the monastery atop the hill were to help build and operate the hall in the village square, sending subsets of the collection to exhibit and scribes to assist. Suppose also that the monastery appointed the princess as an honorary scribe and special curator, recognizing her knowledge of the king's work to be priceless to their own efforts.

As the palace attends to its rightful business of building more inventions, the princess and the scribes could work together illuminating more of the king's manuscripts for all to enjoy. Of course, princess, palace, and monastery alike would all be able to fly the king's banner.

Stephen Fortner
Editor

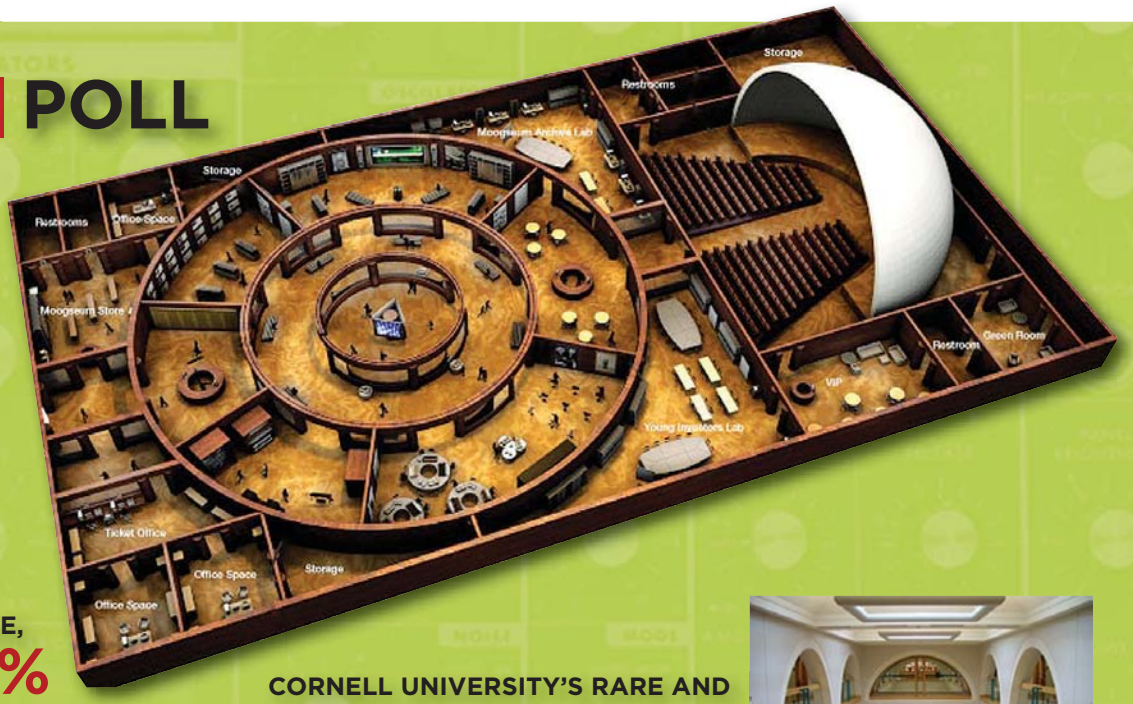
Connect

- Comment directly at **keyboardmag.com**
- twitter.com **keyboardmag**
- facebook.com **KeyboardMagazine**
- SoundCloud.com **KeyboardMag**
- Keyboard Corner **forums.musicplayer.com**
- email **keyboard@musicplayer.com**

THE Keyboard POLL

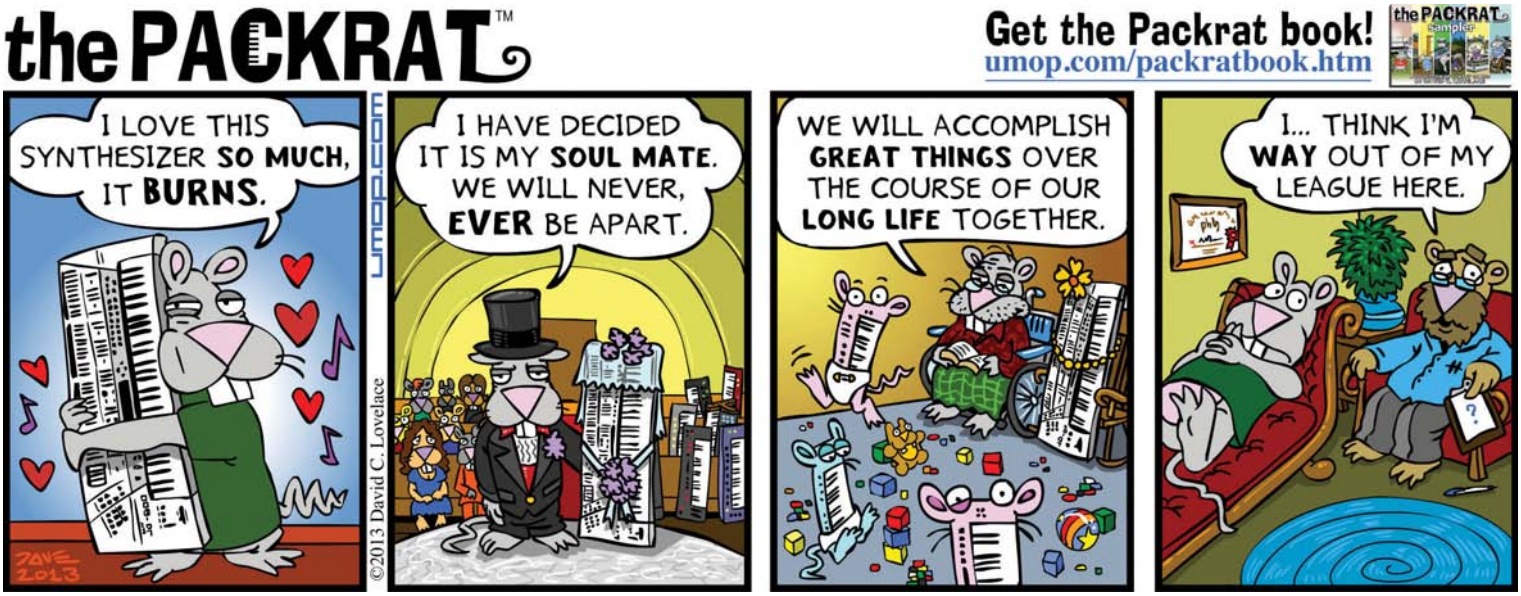
Q: WHAT IS A BETTER HOME FOR BOB MOOG'S ARCHIVES?

Polls rotate every two weeks, and can be found at the bottom of our homepage.



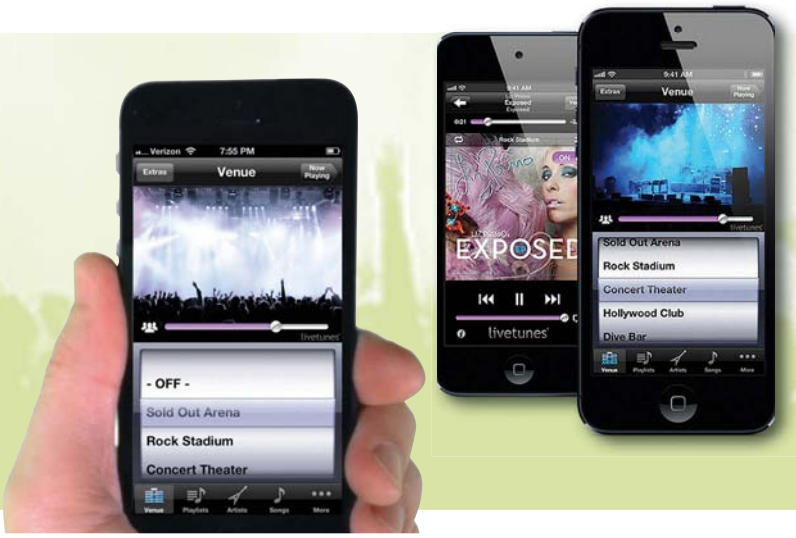
THE BOB MOOG FOUNDATION IN ASHEVILLE, NORTH CAROLINA **99%**

CORNELL UNIVERSITY'S RARE AND MANUSCRIPT COLLECTIONS IN ITHACA, NEW YORK **1%**



Key Secrets App-lause

Reverb adds life to electronic sounds, but for real excitement, there's nothing like a cheering crowd. The new LiveTunes app for iOS (LiveTunesApp.com; $1.99) adds both quality iZotope reverb and an interactive audience to your music. There are five reverb presets, from "Dive Bar" to "Arena," each with personality. The crowd noise is a mixture of ambient backgrounds and random cheers you can trigger with a swipe up the screen. "Playing" ambiences like that is a fun technique you can do in any DAW or sampler. Like the result? The developer says selling your original music with the LiveTunes effects is fine. David Battino



Next Tech: The PianoArc

A keyboard that completely encircles the player has been something of an iconic fantasy for a long time, probably due to an over-the-top level of the sci-fi aesthetic that attracted many of us to synthesizers in the first place. A giant mantis named Zorak used one while playing Paul Shaffer to Space Ghost's Letterman on Cartoon Network, but now, one flesh-and-blood keyboardist is living the dream as well. Brockett Parsons, who tours and records with Lady Gaga, co-developed the PianoArc with former college bandmate Chuck Johnson, Steinway tech Rich Fell (who did the action), and Dave Starkey of MIDI9 and QRS (who did the electronics). The custom-built MIDI controller has 292 keys (three 88-note segments plus a 28-note control section), measures about six feet in diameter, and can tilt on the fly for showmanship. Stand it on its side and play a secret melody, and it becomes a stargate. Actually, no, but that would explain how Mother Monster got to our little planet. Want your own? The team at pianoarc.com says it's possible for "about the price of a high-quality acoustic grand piano." Stephen Fortner

NEW GEAR

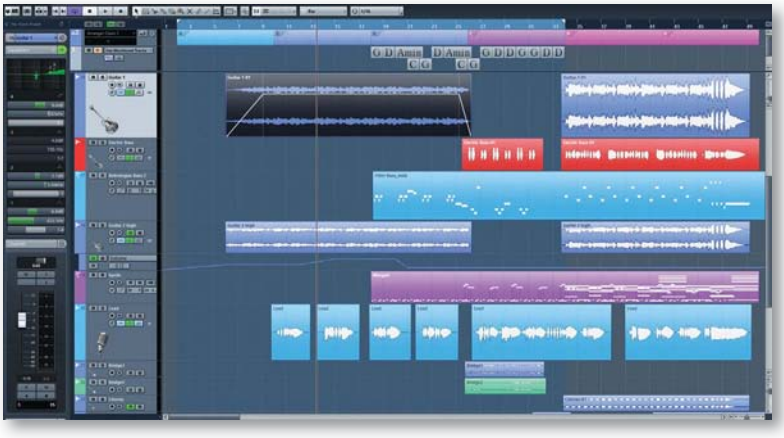
BY GINO ROBAIR

ICON DIGITAL IKEYBOARD

WHAT Compact MIDI controller. **WITH** Eighteen assignable buttons including DAW transport controls. Pitch and modulation touch strips. Expression and sustain pedal inputs. Dual-function knob/button encoder. Supports Mackie Control and HUI protocol. **WHY** This sturdily-built newcomer can serve as your main note entry appliance and DAW controller in a tight studio space. ***25 keys*: $129.99 | *49 keys*: $172.99 | *61 keys*: $199.99 | icondigitalusa.com**

IZOTOPE RX3

WHAT Audio restoration software. **WITH** Reverb removal. New de-noiser algorithms tailored for dialogue. New de-click options. Supports multi-core processing. Pro-level loudness metering. Pitch contour feature using X/Y controller. Discount price for students. **WHY** Noise removable is data-intensive, and this update adds features that modern computers can now handle easily. **$TBA | izotope.com**



STEINBERG CUBASE ELEMENTS 7

WHAT Entry-level DAW. **WITH** Thirty-two-bit floating-point audio engine, 48 audio tracks at up to 24-bit/96kHz resolution, and 64 MIDI tracks. Mix Console with inline EQ and dynamics effects. VST Amp Rack. Chord Track. ASIO Guard for driver stability. **WHY** Sometimes you just need an inexpensive DAW that includes musically useful features. **$130.99 | steinberg.net**

MOGAMI GOLD HIGH DEFINITION DUAL KEYBOARD CABLE

WHAT Audio cable aimed specifically at keyboardists. **WITH** Double shielding. Wide frequency bandwidth with a neutral sound. XLR or 1/4" TRS at one end. Right-angle or straight 1/4" plug on the other. **WHY** Even if your rig has 99 problems, your cables won't be one. ***Unbalanced*: $100 | *Balanced*: $130 | mogamicable.com**

HAMMOND DIGITAL LESLIE PEDAL

WHAT Rotary speaker modeling pedal. **WITH** Stereo audio I/O. True bypass. Four cabinet models: 122, 147, Model 18, and PR-40 stationary cabinet. Adjustable rise and fall time for rotors. Rotor mix control. Speed and brake footswitches. **WHY** You get four different Leslie sounds onstage without the schlep. **$499 | hammondorganco.com**

BOSS RC-505 LOOP STATION

WHAT Boss' most advanced looper yet. **WITH** Five phrase tracks that can play independently or simultaneously. Three hours stereo recording. Independent transport controls and volume faders per track. Input and track effects. XLR mic input with phantom power. Stereo audio I/O, MIDI, and phrase import/export via USB. Onboard phrase memories and rhythm patterns. Can act as a USB computer audio interface. **WHY** From Kid Beyond to TuneYards, live looping has proven to be an artistic way of creating counterpoint in the right hands, and this is the most powerful tool out there. **$799 | rolandconnect.com**

EQUATOR AUDIO D8

WHAT Active coaxial studio monitors with DSP. **WITH** Eight-inch woofer, 1" tweeter, 60W woofer power, 40W tweeter power. XLR and TRS inputs. Frequency response of 44–20kHz. Boundary mode switch. DSP ensures output from both speakers in a pair is identical. **WHY** Coaxial monitors offer increased accuracy, and this is an unprecedented low price on an extremely well-made pair. **$777 per pair | equatoraudio.com**

WALDORF NAVE

WHAT Wavetable synth for iPad. **WITH** Dual wavetable oscillators. Analyzes audio files to create wavetables. Überwave module adds eight virtual analog oscillators. Built-in four-track recorder. Arpeggiator. Delay, Reverb, Drive, EQ, and modulation effects. Multimode filter. **WHY** You get the best of Waldorf's classic wavetables, plus editing, in an easy-to-use app. **$19.99 | waldorfmusic.de**

All prices are manufacturer's suggested retail (list) unless otherwise noted. Follow keyboardmag.com/news and @keyboardmag on Twitter for up-to-the-minute gear news.

DUMPSTAPHUNK

IVAN NEVILLE KEEPS THE FAMILY GROOVE

BY DIANE GERSHUNY

JOE RUSSO

NEW ORLEANS NATIVE IVAN NEVILLE LITERALLY HAS MUSIC IN HIS DNA. HIS FATHER AARON (SEE OUR MAY 2013 COVER STORY) HAS BEEN FRONTMAN FOR THE NEVILLE BROTHERS FOR OVER 35 YEARS. UNCLES CHARLES (HORNS) AND CYRIL (PERCUSSION) ARE ESSENTIAL MEMBERS OF THE NEVILLE BROTHERS ALONG WITH ART (KEYBOARDS), WHO HAS ALSO LAID DOWN SOME QUINTESSENTIAL GROOVES WITH LEGENDARY CRESCENT CITY FUNK OUTFIT THE METERS.

Ivan joined the Neville Brothers fresh out of high school (as third keyboardist, along with Art and Gerald "Professor Shorthair" Tillman) and went on to score stage and studio gigs with Bonnie Raitt in the late '80s and the Rolling Stones—contributing keys on 1986's *Dirty Work* and 1994's *Voodoo Lounge*. With four solo albums to his credit, Ivan's 1988 debut, *If My Ancestors Could See Me Now* on Polydor, landed a Top 40 hit, "Not Just Another Girl."

Currently, he's ensconced in Dumstaphunk, an all-star collective comprised of cousin Ian on guitar, the double bass attack of Tony Hall and Nick Daniels III, and Nikki Glaspie on thundering drums. Their third studio outing, *Dirty Word*, brings a booty-shaking blend of funk, blues, gospel, second line, and rock and a host of friends and family from Uncle Art Neville, Trombone Shorty and the Rebirth Brass Band to Skerik and the Grooveline Horns, Ani DiFranco and Flea of the Red Hot Chili Peppers.

JOSHUA TIMMERMANS

Is the organ a fundamental instrument of funk?
Definitely! The Hammond organ has a vibe about it; organ has soul. It's very important because it can be played rhythmically and that embodies what funk music is. You need to have an organ if you're playing funk—an organ and a Clavinet. There are some digitally generated sounds available, but the way the real instruments feel influences the way I play. And when I play an organ I play different stuff than when on a Clav. Same with a Rhodes. Having one keyboard that does all those sounds is just not the same.

Where does New Orleans fit into the sound of funk?
Oh man, it's the sound of the streets in New Orleans. It's all about an attitude; what's in the air, the food. You have brass bands and guys who play sousaphone in the most rhythmic way you can imagine. It's all funk in some way: Dixieland music is funky in its own way. Second-line brass bands are funky because they make you want to dance. You can't help but move.

Who are some of your influences and how do they inform your playing?
As far as piano players, New Orleans is full of them: Professor Longhair, Uncle Art [Neville], Doctor John, and Allen Toussaint. James Booker, who's one of the most amazing piano players I've ever heard in my life, was a friend of my mom and dad. Stuff like Sly and the Family Stone really captured my attention early on; so did rock 'n' roll like the Beatles and the Rolling Stones. Obviously, The Jackson 5 was inspirational, too. I like mixtures of different music and I think over the years, it's kind of created its own gumbo in me.

> "The Hammond organ has a vibe about it; organ has *soul*."

How about drummers? Your playing has a very percussive quality.
I'm sure that comes from being around the Meters and specifically Zigaboo Modeliste, the drummer from the original band, as well as my Uncle Cyril. I definitely listen to the drummer a lot when I play. In the Meters, Art would play along to Zigaboo's hi-hat and hit those ghost notes that you don't really hear but that are still kind of in there.

How would you describe your playing style?
I listen a lot. And that's probably my biggest gift; what I'm most talented at. I like to listen to the other instruments and what's going on with the music, and that's what determines what I play. I'm very good at not playing, if you understand what I'm saying. I can play very little and have it be quite effective.

Which begs the question, what's your definition of groove?
Wow, I don't know if I can describe that. I can picture it. It's basically like a puzzle. You fit pieces into it and then there are places where there are no pieces. That's what I think about funk. You've got a pulse and things moving in and out, and then you've got areas where there's nothing. And that's just as important as

where there is sound. You can feel it in your body and it makes you want to dance.

Which tracks on the new record best showcase your approach to groove?
On "Reality of the Situation," I'm doubling organ with Clav, which I do often, and I overdubbed a bit of Rhodes on top of that. I like the texture and think the instruments work well together.

We did a cover of Graham Central Station's "Water." I'm obviously influenced by the guys that played with Larry Graham.

"They Don't Care" has a very '70s rock vibe. I'm playing eighth-notes and the best description of where that idea comes from is the Who or even Manfred Mann's "Blinded by the Light." I wasn't consciously thinking of those but it kind of came out like that. I played a little bit of Rhodes on it with some delays in tempo and really dug the way we textured the song.

On "Take Time" I'm playing organ and Clav and I added a kind of Moog synth sound, which I played on the Nord. There's a cool organ solo on that one, too.

"Raise the House" has a more traditional second-line feel and I play organ and Clav like I normally do, but my Uncle Art overdubbed Rhodes on that, too—which is kind of cool because when I was playing it in the studio I was thinking about his sensibilities. My solo on that is very Art Neville-esque.

When you're writing, do you know instinctively what instrument(s) you're going to play on a particular song?
It just kind of happens, but for the most part, especially with this band, it's usually going to be organ and Clav some way unless it's obviously calling for something else. On "Dancing To The Truth," that song defined what was going to be played the way it was developing and the way the groove felt. My playing is pretty minimal on it and I love that. I'm playing a left-hand Clav and right-hand organ at the same time—which I do a lot on the whole record. There's not a lot of overdubbing, most of what I do is live with Clav on top of the organ. The Clav part actually stands out because it's got that wah sound. I'm playing little complimentary stabs and rhythmic stuff on the organ and every now and again you'll hear something slightly melodic but the vocals are what leads that song and obviously the bass groove underneath it. My playing just sits in there.

Dumpstaphunk has transcended traditional funk boundaries. What is the future of funk?
Funk ain't going nowhere! We're always going to revert back to funk in some fashion. All of the new music being made in some way borrows from funk: electronic dance music is borrowing from funk, especially in that it makes people want to dance.

James Brown was one of the most important fathers of funk. He also had some of the key members that ended up being in Parliament-Funkadelic like Bootsy Collins. Fred Wesley and Maceo Parker were all influential in creating that sound along with George Clinton. Look at Gospel and blues music and how it evolved and influenced rock 'n' roll; it's all kin.

We're happy that we can incorporate bits of those influences into something that pushes the boundaries of what funk is—which is a lot broader than most people realize. With Dumpstaphunk, the music will definitely be rocking, it can lean a little bluesy and pop and get a little spiritual—and we tend to make it a little dirty and nasty, too! ♫

MICHAEL WEINTROB

PHUNK IN THE TRUNK

The core of Ivan Neville's stage rig is a vintage Hammond A100 organ played through a Leslie model 147, plus a Clavia Nord Stage 76. Here are more details, in Ivan's own words.

Hammond A100 Leslie 147

"I run the Clav through a Dunlop wah pedal, to a Dunlop Bass Envelope, to a DigiTech talkbox, to a DOD delay pedal with tap tempo and from there to an amp—lately I've been using a Peavey that bassist Tony Hall turned me on to. Also I have a [Dunlop MXT] bass D.I. that I use for the Rhodes. I like having an amped signal and a signal that goes through a D.I. so I can blend direct and miked sounds.

"The Nord Stage is very nice. You can dial your sounds with delays and other effects. Obviously, I'd rather play a real Rhodes, which I do in the studio. But live, the Nord gets some Wurlitzer and Rhodes sounds that are very good. The analog section has some synth sounds like Minimoog and some poly sounds where I can play multiple notes. I can save things so I have my go-to Dumpstaphunk sounds on the road.

"On fly dates, we have backline and usually they provide comparable stuff, like a Hammond A100 or B-3. I really try to get a Clav, too. Every now and again, in some remote places, the venue or backline rental people won't have one, but they'll usually have a Nord. If I have three or four patches that I can dial in before the gig, I'll be ready. The Nord's 'Square Bass' is a good starting patch for synth sounds, along with 'Foggy Bass.' I can turn those two sounds into any analog or Minimoog-like sound I want."

Clavia Nord Stage 76

MOXF6/MOXF8

A New Universe of Sounds From a Decade of Motifs

Yamaha has updated the popular MOX Series with the latest Motif XF technology by adding the XF's sounds and effects and even a Flash Board option slot. Because it's compatible with Motif XF and MOX data, there is a huge collection of sound and sample libraries and optional software available right away. The MOXF has all the abilities you need—compatibility, expandability, portability, and affordability. It brings MOTIF XF music production power to a whole new generation of players and producers.

- The popular MOX updated with the sounds of the Motif XF
- 741 MB wave ROM, 3977 waveforms and 128 note poly
- Expanded to 8 insert effects
- Up to 1 GB of Flash board sample expansion
- Voice and Library Compatible with Motif XF, Motif XS, and MOX
- 16 Track Song and Pattern Sequencer with real time loop remix
- Built-in 4 channel USB audio/MIDI interfacing and extensive DAW /VST controls
- Portable and affordable

Visit www.4wrd.it/mox68key
or scan this QR code
for more information

YAMAHA

©2013 Yamaha Corporation of America. All rights reserved.

CHVRCHES

ON THE IMPORTANCE OF HAVING HARDWARE

BY RYAN COSEBOOM

AFTER FORMING IN 2011, GLASGOW'S CHVRCHES LIT UP THE INTERNET WITH THEIR DAY-GLOW electronic pop fronted by fiery vocalist Lauren Mayberry. Synthesists Martin Doherty and Iain Cook build burbling electro tracks propelled by heavily compressed beats that breathe and pump energetically behind layers of buzzing synth arpeggios and Mayberry's irresistible hooks, effortlessly fusing early-'80s new wave with modern hip-hop and EDM elements. As their first studio album *The Bones of What You Believe* debuts, the buzz for the band has quickly outgrown the online community that first embraced them, causing many of their U.S. dates to sell out in less than five minutes. Plus, they've just been asked to support Depeche Mode in Europe later this year. We caught up with Iain and Martin in Los Angeles about how they crafted the songs on *Bones* and how they take them on the road.

Tell me a little about how Chvrches came together.

Iain Cook: I was in a band called Aereogramme for eight years or so. Towards the end of that period, Martin and I started working together on a couple different things. I was producing and working with his other band.

How did you both go from the harder rock of your previous bands to Chvrches, which is almost purely electronic?

IC: One night in San Francisco, things were going pretty badly. I remember sitting down next to Martin and saying, "Let's just do something else." It was about five years before we actually sat down to write together and we just went in to the studio for two days and started throwing ideas down. We started to form something really exciting pretty quickly. Around that time, I was producing an EP of Lauren's band. We asked her to try some vocals on our songs, and sure enough, as soon as we heard her voice with the synths and everything, we said, "This is amazing!"

In the early days of the band, what gear were you using?

IC: In terms of the recording rig, we used [Steinberg] Nuendo to track everything, but we try to keep as much hardware in the studio as possible so that we're not relying heavily on plug-ins—other than the [Universal Audio] UAD stuff, which is pretty phenomenal. It's not quite the same level of character you get from actual vintage outboard, but it's about as close as you can get without dropping about 100 grand.

Martin Doherty: The tunes usually start by being influenced by equipment—they're so heavily influenced by just a sound—like a pad or a tape echo. There's no substitute for hardware for going from being uninspired to having the bones of a tune in 20 minutes. All from messing about with one piece of gear, and it can come from Iain or myself, or Lauren will come up with a vocal hook. It's very much a democracy, this band. There are no passengers.

IC: We were also starting to collect synths around that time. Our basic setup was a Minimoog Voyager, a Roland Juno-106, and a Prophet '08. Pretty soon after, we added the Mopho x4 and the Tempest.

So, you're Dave Smith fans?

MD: Oh, yeah. He actually got in touch with us the other day when we were in San Francisco and he invited us to his studio to road test the new Prophet 12.

IC: There was such a great energy in the room because they were gearing up to ship and they had the whole company in the office—which was, like, eight people. They updated the firmware of our Tempest and signed it.

Do you bring any of the hardware synths onstage?

IC: We have the Voyager, the Juno, and the Prophet '08. The Juno is the one thing I'm terrified about because if that thing goes down, we're in trouble. The tuning sometimes goes weird on those things, if there's too much humidity in the room or whatever.

When I saw you play in San Francisco, you were also doing a lot with Native Instruments Maschine.

MD: Maschine is pretty integral to the live show. We use the library in the studio for drums when we're not using the Tempest, but we're not using it for that onstage. We've got our whole library of samples loaded into Kontakt and we use Maschine to control it all—from vocal samples to massive stacked keyboard sounds that we'd need five synths to recreate live. We want to minimize load on the computer so I'll just load in the individual notes we need.

Tell us about working with producer Rich Costey on mixing the album. . . .

IC: He was our first choice for mixing because he's so well known for his rock production and we wanted to move away from clean electronic tones into something that's really punchy and kicked-up.

MD: His outboard chain for the entire mix is terrifying.

IC: Just the stereo bus at the end costs probably about half a million pounds, and it sounds like it. [*Laughs.*]

It's cool to be working at that level on a debut album. For a lot of bands, the first album is more the "bedroom" record.

IC: Actually, this kind of still is the bedroom record because we recorded it in a small basement studio in Glasgow. No live room or anything—just a bunch of synths and a computer. *Because* we tracked it all ourselves, though, there was a budget to get it mixed properly—to have Rich Costey make the most out of our raw materials.

That's a great way for bands to maximize their budgets: Track everything yourself and then hire a pro mix engineer.

IC: We actually found it quite difficult to take our hands off mixing the record because we had the songs up to a really good place. We thought we'd do it ourselves from start to finish but we couldn't pass up the opportunity of seeing what someone like Rich would bring to our music.

MD: To prove we could do it all ourselves would've been quite a statement, but then the time window got smaller and smaller. So we spoke to Rich. I love those Mew records he did. I've been a huge fan of Rich's work for years, so if we were going to go with anybody, why not go with the best?

You've got some upcoming dates supporting Depeche Mode. Were any of those earlier electronic bands an influence?

IC: Oh, hugely. We grew up listening to that stuff. When we heard we had the opportunity to play with those guys, it was just about the most exciting thing we'd ever heard.

MD: When our manager told us, "You've been offered these Depeche Mode dates," I got this thing like, "Is this an offer or are we just in the running? I don't want to hear about it if we're just in the running because it'll keep me up for the next three weeks." Even when he said, "No, it's 100 percent confirmed," I still couldn't believe it until they announced it. It was that big a deal.

With the touring such a runaway success, do you expect a break or any time to work on new music soon?

IC: Well, the idea is, we're going to be writing a lot of our second album the road. We've got a lot of ideas for setting up a studio in the lounge of the bus.

MD: We've got the Tempest on the road with us, and the Teenage Engineering OP-1, and the Moog Minitaur. We've got a wealth of soft synths, too. I grew up on Arturia. I really respect it. If you don't have the hardware, it's a really good substitute—we *still* can't afford a CS-80! [*Laughs.*]

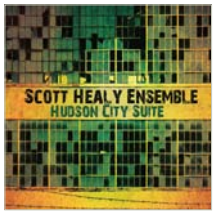
ELIOT HAZEL

CAPTIAL CITIES
In a Tidal Wave of Mystery
One thing we at *Keyboard* love about this whole neo-disco synth-pop resurgence is that it's showcasing many of the sounds that made the synthesizer an object of curiosity—and then desire—in the first place. It's challenging, though, to find bands that underpin a love of groove and twisting filter knobs with serious songwriting skills. Enter Capital Cities, a band that comes very close to the Platonic ideal of electro-pop perfection. "Depeche Mode meets Hall and Oates" is one oversimplification, but I'll go out on a longer limb still: We loved Daft Punk's *Random Access Memories*, but Capital Cities' effort here is the musically stronger, stylistically more diverse, and sonically more interesting record. Highly recommended. | capitalcitiesmusic.com | STEPHEN FORTNER

KENNY BARRON
Kenny Barron and the Brazilian Knights
Jazz pianist and composer Kenny Barron is no stranger to the music of Brazil. Since anchoring the piano chair in trumpeter Dizzy Gillespie's band in the 1960s, Barron's catalogue has regularly featured the soaring rhythms of samba and bossa nova music. His latest release features 11 spirited tracks that highlight the work of famed Brazilian composers Johnny Alf and Mauricio Einhorn. Must-listen track: Barron's scintillating solo work on the album opener "Rapaz De Bem" is worth the price of admission alone. | kennybarron.com | JON REGEN

SOUND OF CONTACT
Dimensionaut
Jonesing for some fresh prog rock? Multi-movement operatic songs packed with virtuosic instrumental work, but balanced with hummable vocal-driven tracks? Keyboards marshaled both for orchestral soundscapes and counterpoints, and for blistering synth solos? Then don't miss this debut release, an ensemble that includes Simon Collins on drums and Dave Kerzner on keyboards. If those names sound familiar, it's because Simon is the son of a fellow drummer named Collins and Dave is the guy behind soundware developer Sonic Reality—and one of the biggest synth nerds we know. Their combined talents inject new energy into the genre. Kudos! | soundofcontact.com | STEPHEN FORTNER

DAVID CHESKY
Jazz in the New Harmonic
Composer and pianist David Chesky shakes things up on his new release *Jazz in the New Harmonic*. Pitting old school grooves against a modern, classically inspired harmonic framework, Chesky turns what at first sounds like a straight-ahead blowing session on its proverbial head. With jazz journeymen like bassist Peter Washington, drummer Billy Drummond, saxophonist Javon Jackon, and trumpeter Jeremy Pelt in tow, Chesky boldly blurs stylistic barriers. Listen to: "Grooves from The Underground." | davidchesky.com | JON REGEN



SCOTT HEALY ENSEMBLE
Hudson City Suite
Keyboardist, composer, and arranger Scott Healy surprises with this seductive new release. Best known for his blues-tinged keyboard work in Conan O'Brien's Basic Cable Band, here Healy reveals himself to be a composer of serious sonic merit. The album blends Healy's unique brand of boisterous band grooves and horn-laden harmonies, while simultaneously saluting familiar forbears such as Duke Ellington, Count Basie, and Gil Evans. Check out Healy's "Summit Avenue Conversation" for an example of this triple threat in action. | bluedogmusic.com | JON REGEN

THE DAN HAERLE QUARTET
Live at Luminous Sound
Pianist Dan Haerle anchored the jazz department at the University of North Texas for a quarter of a century. His new album *Live at Luminous Sound* features him in a quartet setting on a program of jazz classics recorded live. Haerle's ace accompaniment and chordal control on cuts like Wayne Shorter's "Fee Fi Fo Fum" and the venerable standard "Stella By Starlight" show why this renowned musician has been one of the most in demand educators on the planet. | danhaerle.com | JON REGEN

KROSS

MUSIC WORKSTATION

The new Korg Kross packs powerful features into a highly-portable, incredibly easy-to-use design so that you can unleash your creativity. Everything is laid out to help you focus on what's important: performing and writing with legendary Korg sounds that will inspire.

- Easily select from a huge variety of pianos, drums, & other expressive sounds
- Quickly split & layer sounds, & create beats with drum machine-style step editing
- Lightweight design; 9.5 lbs. (61-key synth action) or 27.3 lbs. (88-key weighted action)
- AC or battery powered
- 16-track sequencer & 2-channel audio recorder (SD card required)

KORG.COM/KROSS

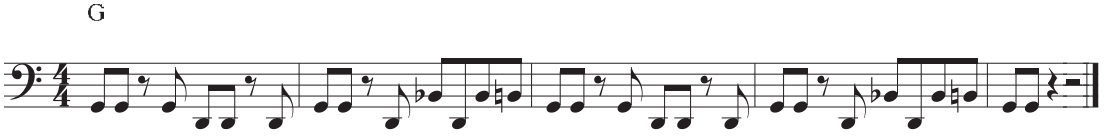
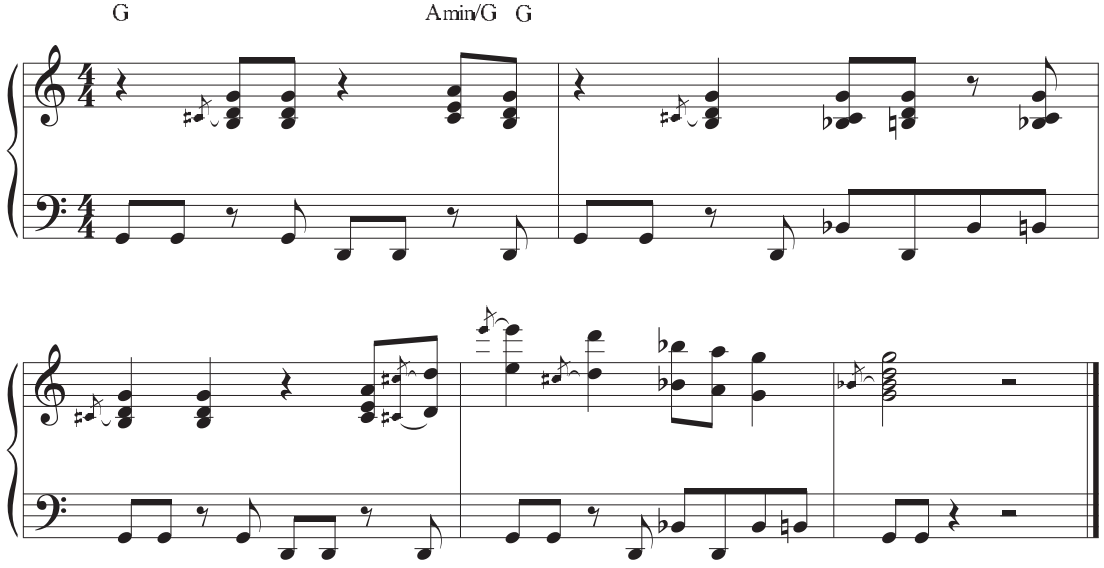
KORG

CARL LENDER

5 WAYS TO PLAY LIKE Allen Toussaint

BY JEFF KAZEE

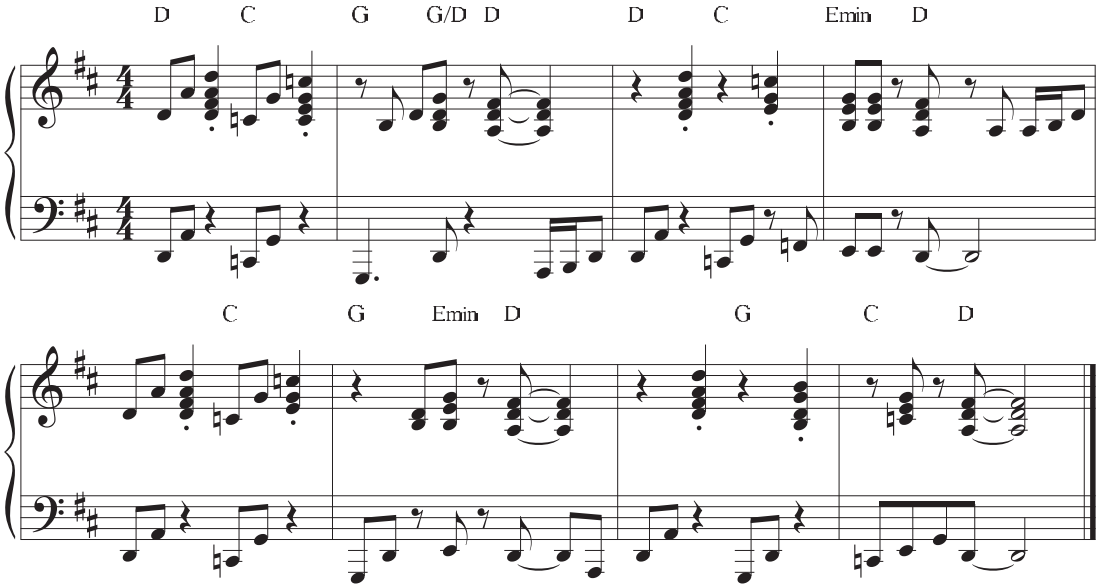
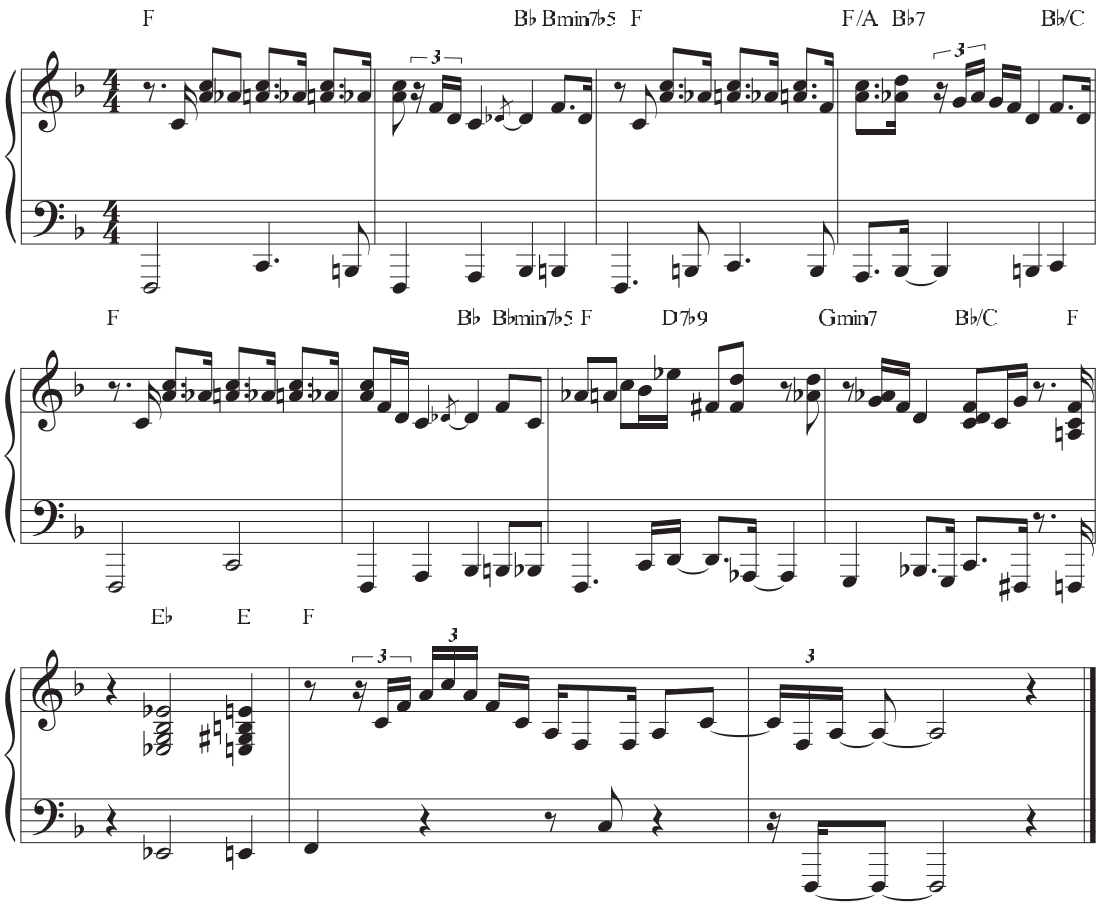
KNOWN EQUALLY FOR HIS MASTERFUL WORK AS A PIANIST, COMPOSER, ARRANGER, and producer since the early 1960s, Allen Toussaint's talents grew out of the musical crucible of New Orleans. He quickly made a name as a tasty pianist who could also arrange and produce songs that became hit records. Along with his talent for crafting successful songs, Toussaint has lent his keyboard skills to artists like Paul McCartney, Doctor John, the Band, and countless others. Toussaint's piano style can be broad, as he pulls from a wide reservoir of genres and influences. Here are five ways to play like Allen Toussaint.

Ex. 1.

Ex. 2.

1. Start from the Bottom

On many early 1960s New Orleans records by artists like Lee Dorsey, Chris Kenner, and Ernie K-Doe, Toussaint would devise a basic riff—often a simple root-fifth pattern on a vamped chord, as in **Ex. 1**. Then he'd add a small and clever turn to the phrase. Usually alongside a sparse drumbeat, these elements would form a bed that allowed nearly any melody or rhythm part to fit in without jumbling the mix.

2. Add Some Rhythm & Create a Catchy Hook

Ex. 2 demonstrates the basic bones for a Toussaint-style '60s New Orleans pop arrangement, all on one piano. Check out how the right hand chords answer the bass line in a rolling way. Notice the Gospel flavor that the quick *A* minor chord provides on the fourth beat of the pattern before landing back on the *G7* chord. Spice up the right hand pattern with a little chord syncopation and half-step toggling of the third (*B*♭ to natural) and fifth (*C*♯ to *D*) in the *G7* (bar 2, starting on the third beat), and the groove is in place. Add a spritely horn-like riff with octaves, and a hook has been created.

Ex. 3.

Ex. 4.

3. The Riff Goes On

Ex. 3 is a funky device that Allen used to great success: a crisp call-and-response riff for two hands that can be a foundation for an entire song. It's a two-bar riff of *D*, *C*, and *G*, with an *E* minor chord occasionally substituting for the *G* at the end of the riff. The left hand starts the first two notes of the riff with the root and fifth of each chord, and the right hand ends the third note of the riff with a stabbed chord. After repeating the riff three times, we change the chord sequence in bar 7 to *D*, *G*, *C*, and then land "home" to *D*. By altering the chord sequences ever so slightly in different sections, the song retains its tonal center and funk spirit, yet never sounds like a boring one-chord jam.

4. The Professor Is In

George cites the Wurlitzer electric piano as an influence ever since hearing Ray Charles' "What'd I Say" on the radio. A very soulful instrument, George claims the Wurly takes him to a place unlike any other. George tends to "bend" the notes more when playing Wurly, meaning he uses one or two consecutive notes as grace-notes leading to a stable target note such as the third. **Ex. 4** is an example of his Wurly work.

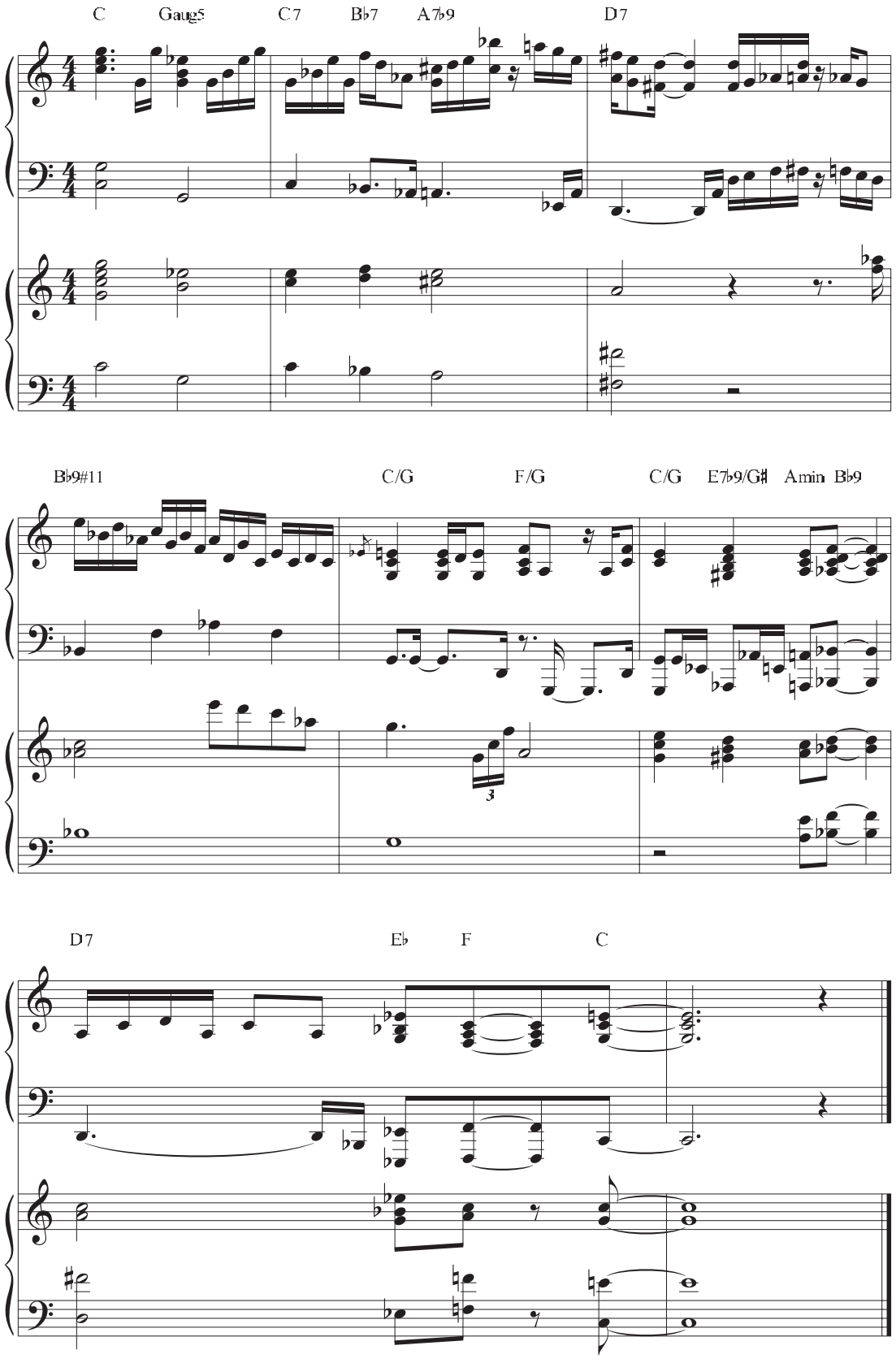
Starting Simple

"The thing I've always focused on about Allen Toussaint's playing is his ability to evolve an entire pop arrangement out of a simple piano part," says sought-after sideman **Jeff Kazee**, who produced Southside Johnny and the Asbury Jukes latest release *Pills and Ammo*. Kazee has also worked with Bon Jovi, Crystal Bowersox, and his own tribute group Early Elton. Follow him on Twitter @jeffkazee.

SOUNDCLOUD

Hear Jeff play the audio examples from this lesson online.

keyboardmag.com/october2013

Ex. 5.

5. Adding Richness with Instruments and Chord Choices

Toussaint achieves a full sound on his eclectic recordings with a minimum of instrumentation. He uses soulful harmonic choices and well-placed, vibey pads, like those played on Rhodes in **Ex. 5**, which is written in the style of Toussaint's mid-'70s "Southern Nights" period. Compositionally, this example features some intriguing impressionistic devices, including the opening chord change from *C* to *Gaug5,* followed by the *descending C7*, *B♭7*, *and A7* arpeggiated chords, which help create a dreamy atmosphere. Also note Toussaint's use of isolated bass figures with parallel harmony (bar 3, beat 3), and his penchant for Gospel chords (bars 5 and 6) with pedal chords and minimal bass root movement.

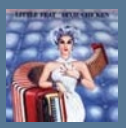
Listening List

Great Allen Toussaint Tracks

ERNIE K-DOE
"A Certain Girl"

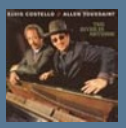
LEE DORSEY
"Working in the Coal Mine"

LABELLE
"Lady Marmalade"



LITTLE FEAT
"On Your Way Down"

ROBERT PALMER
"Sneakin' Sally Through The Alley"



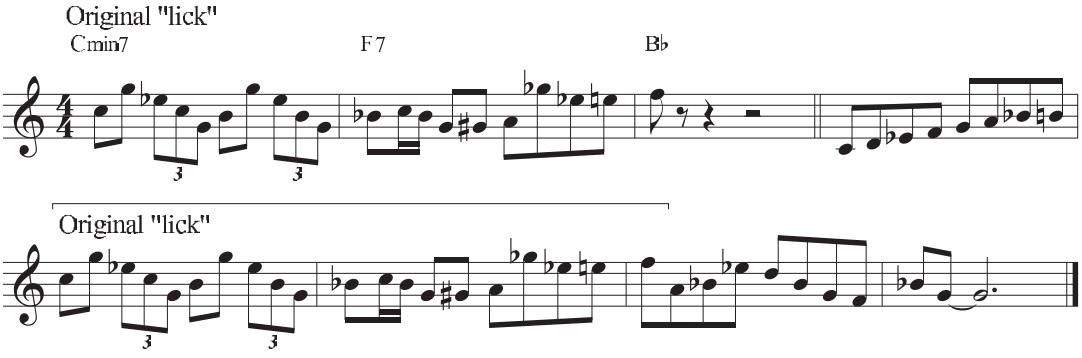
ELVIS COSTELLO AND ALLEN TOUSSAINT
"The River in Reverse"

Guitar Center
-PRESENTS-
Singer
SONGWRITER
~WITH DON WAS~ III
THE PRIZE
A 4-SONG EP WITH PRODUCER DON WAS
GRAMMY AWARD WINNER FOR PRODUCER OF THE YEAR
OVER 120 MILLION ALBUMS SOLD WITH ARTISTS INCLUDING:
JOHN MAYER, THE ROLLING STONES, BOB DYLAN,
BONNIE RAITT, STEVIE NICKS
$25,000 CASH
NEW GEAR FROM AKAI, AVID,
BOSE, D'ADDARIO, FENDER®, KORG, MARTIN,
M-AUDIO, SHURE, TC-HELICON AND ZOOM
A FEATURE ON GUITAR CENTER'S PODCAST WITH NIC HARCOURT
RECORDING TIME AT THE CONVERSE RUBBER TRACKS STUDIO IN NYC
A WRITE-UP IN AMERICAN SONGWRITER MAGAZINE
WORLDWIDE MUSIC DISTRIBUTION FROM TUNECORE
SUBMIT YOUR MUSIC NOW
GUITARCENTER.COM/SONGWRITER
The Search FOR THE Next Great
AMERICAN SONGWRITER
FILTER songwriter Fender KORG Martin SHURE ASCAP M-AUDIO AKAI AVID CONVERSE BOSE D'Addario zoom TC-HELICON tunecore
NO PURCHASE NECESSARY. VOID WHERE PROHIBITED. OPEN TO LEGAL RESIDENTS OF THE CONTIGUOUS 48 UNITED STATES (AND D.C.) AGE 16+. SUBMISSIONS PERIOD BEGINS SEPTEMBER 1, 2013 AND ENDS NOVEMBER 3, 2013 AT 11:59:59 P.M. ET. FOR OFFICIAL RULES AND COMPLETE DETAILS, INCLUDING PRIZE INFORMATION AND HOW TO PLAY FOR FREE, GO TO GUITARCENTER.COM/SONGWRITER. SPONSOR: GUITAR CENTER STORES, INC. 5795 LINDERO CANYON ROAD, WESTLAKE VILLAGE, CA 91362.

Transform Your Transcriptions

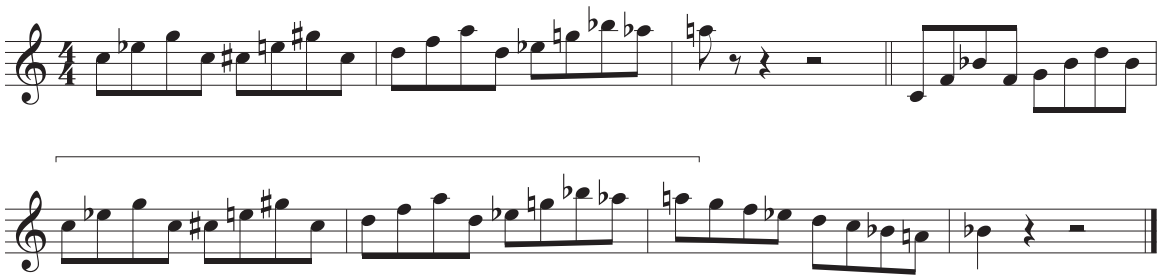
BY GEOFFREY KEEZER

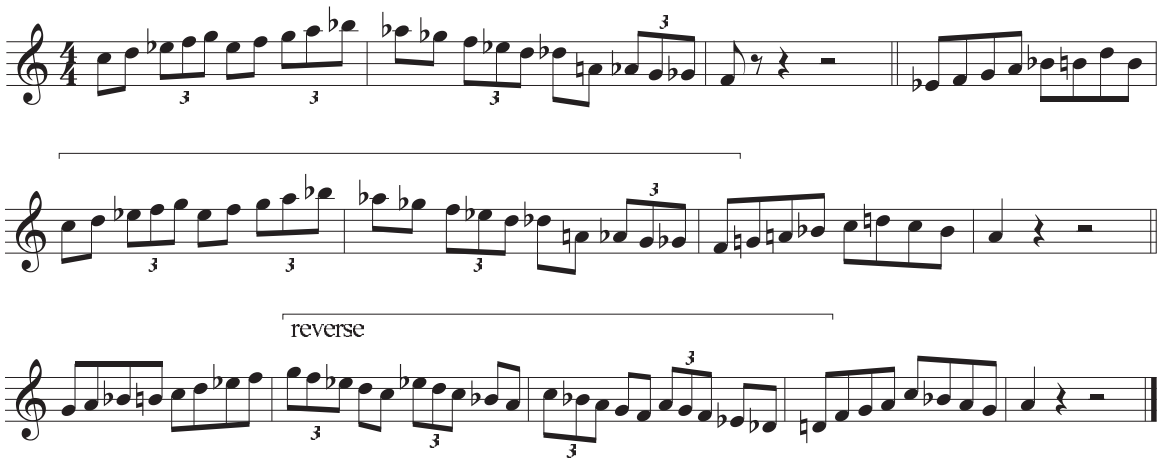
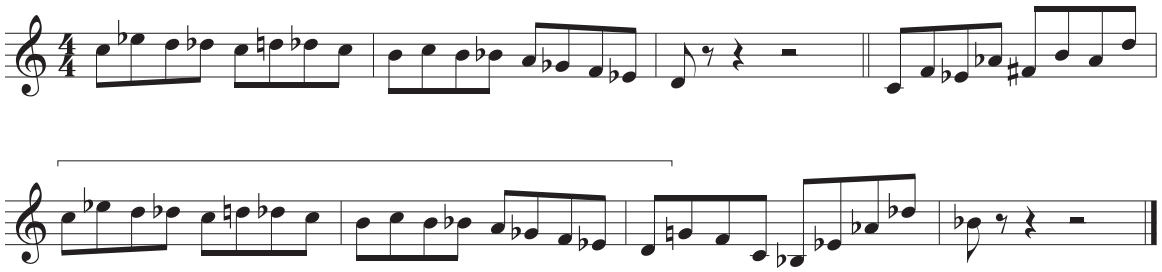
WHEN IT COMES TO LEARNING THE SPECIALIZED VOCABULARY OF JAZZ IMPROVISATION, THE QUICKEST AND MOST direct way to get it into your ears and under your fingers is by transcribing, which is listening to and then notating by ear the streams of notes that some of the greatest musicians have played on record. However, since a primary ethic of jazz is to sound like yourself and not a carbon copy of someone else, the question arises, "How do you bridge the gap between emulating what others played and doing your own thing?" Here are some tools to transform transcribed material into your own original ideas.

Ex. 1.

1. Transcribe a "Lick"

Ex. 1 is a two-measure lick or idea reminiscent of something famed jazz saxophonist Charlie Parker might have played. It's a *ii-V-I* turnaround in the key of B♭, but this lesson isn't going to focus on negotiating chord progressions. Rather, just think of this idea or line as a freestanding packet of musical information from which we can extrapolate a bunch of other cool stuff!

Ex. 2.



Ex. 3.

Ex. 4.

2. Look for Harmonic Patterns

Our original Charlie Parker-style lick has a general downward movement chromatically on the strong beats of 1 and 3 in each bar (*C-B-B♭-A*). Using only this element, we can create a new lick that moves chromatically in the opposite direction (*C-C♯-D-E♭*), as seen in **Ex. 2**. Don't worry about whether it fits over the chord changes. Once you've decided what your new lick will be, practice surrounding it with a measure of notes on either side.

3. Use Rhythmic Elements

The first measure of our original lick has a recurring rhythmic element of two eighth-notes followed by a triplet, a characteristic pattern from the bebop era. Create a new lick using just that rhythmic element, but change the notes, as in **Ex. 3**. Again, don't worry about the chords or whether your lick sounds "appropriate" or "authentic" to the period. Then give your lick context by surrounding it. You can even try it backwards.

4. Mix Things Up

Another characteristic of the historical bebop style is the idea of approaching chord tones chromatically, as seen in measure 2 of the original lick. On beat 2, the two notes *G* and *G♯* lead up to the *A* on beat 3, which is a *strong* chord tone (the third) on the *F7* chord. Instead of approaching chord tones from below, try doing it from above, like in **Ex. 4**. Also try just using chromatic ideas that don't necessarily lead to chord tones.

Lick Trick

"A 'lick' by itself is simply a musical moment frozen in time, which is of course preceded and followed by other streams of notes. Practice connecting your own streams of notes as 'bookends' to a given lick to give it context and continuity," says keyboardist and composer **Geoffrey Keezer**, who joined Art Blakey's Jazz Messengers at age 18 and has since gone on to work with Sting, Diana Krall, and Wayne Shorter. Keezer's latest solo release is *Heart of the Piano*. Find out more at geoffreykeezer.com.

SOUNDCLOUD

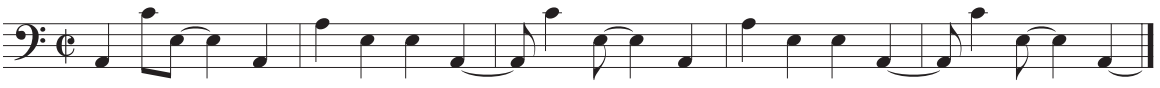
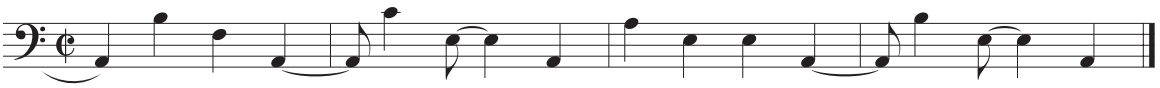
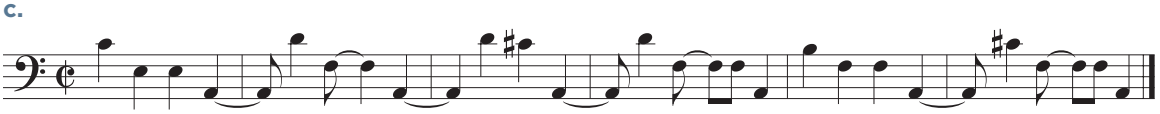
Hear Geoffrey play audio examples from this lesson.

keyboardmag.com/october2013

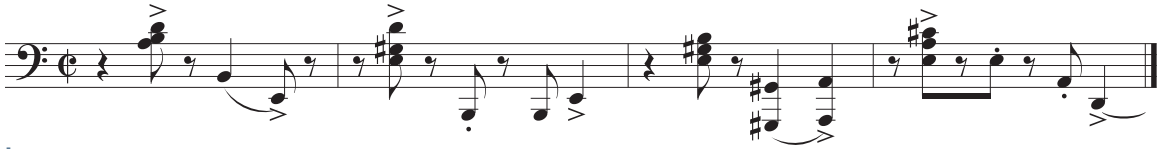
EXERCISES FOR Left Hand Independence

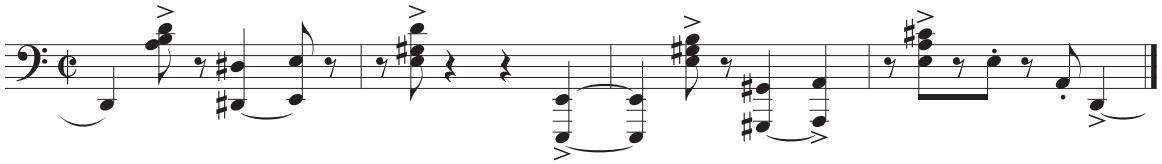
BY MICHEL CAMILO

WHEN I BEGAN PRACTICING THE MUSIC OF THE GREAT STRIDE PIANO MASTERS, I NOTICED HOW THEY ALWAYS SEEMED able to keep their left-hand beat steady as it shifted between chords, counter-melodies, runs, and bass lines. I tried to apply the same kind of independent approach by exploring the rhythmic syncopations of Latin music. Here are some exercises in that style to help build left hand independence.

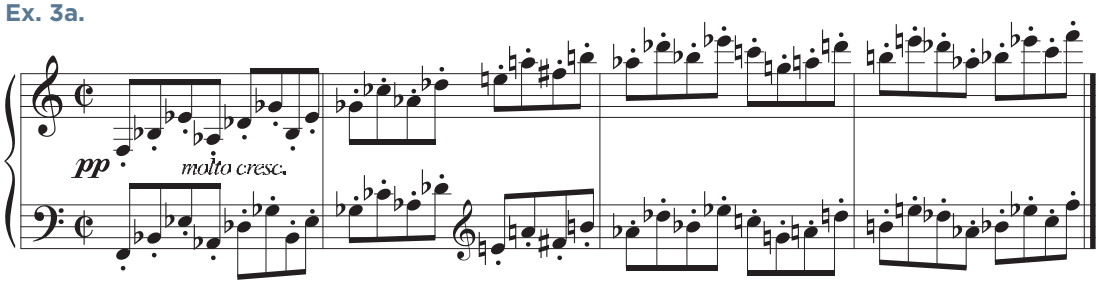
Ex. 1a.

b.

c.

1. Upper and Lower Layers

Exs. 1a through **1c** all feature a groove inspired by "La Comparsa" by Cuban composer Ernesto Lecuona. Try to feel the fourth and fifth bars of **Ex. 1c** as an eight note quintuplet, which is known as a "cinquillo" feel and is an important part of Latin and Caribbean piano styles. The whole point is to feel this as if the left hand is playing two layers: an upper melody and a lower beat leaning on the fourth beat.

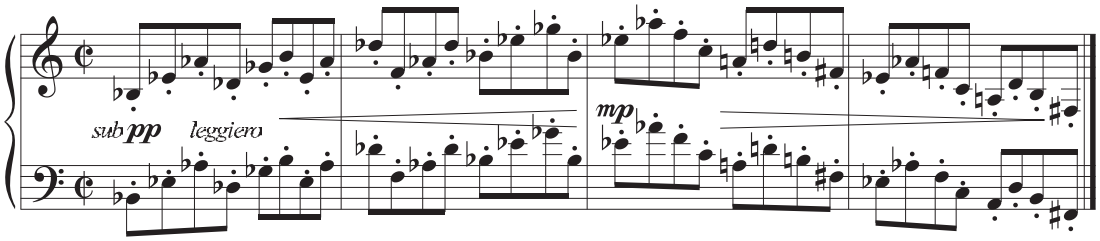
Ex. 2a.

b.



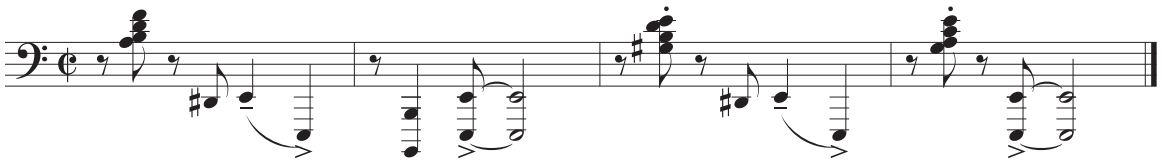
Ex. 3a.



b.



Ex. 4.



2. Pivot Points and Upper Chords

Exs. 2a and **2b** deal with controlling your pivot point in the center of the keyboard, which would be the upper chord. Think of the lower bass line as an answer to the upper chords' call. After your left hand hits the chords with an upward ricochet from the wrist, quasi-staccato, it must then travel quickly down and find a new placement in order to respond with the alternating bass lines that are either legato or staccato.

3. Leggiero Touch

Ex. 3a and **3b** focus on how to keep a "leggiero" or light touch while becoming aware of the power present in the palm of your hand. Try to play this passage with an even touch between your left and right hands. At the same time, respect the dynamics by developing a slow, gliding centered position.

4. Pivot Points and Pedal Notes

Ex. 4 is similar to Ex. 2, but this time we're dealing with a way of building tension by using the *E* pedal notes and going to an even lower register. Here, your two left hand layers are even more apparent, really requiring you to feel your two pivot points as part of your physical connection to the keyboard. You should practice this exercise as a loop while improvising bebop lines or *montunos* on top of it.

Beat It

"The metronome is always your friend, since it keeps your beat steady and won't let you slow down or rush," says Grammy-winning pianist **Michel Camilo**. "Also remember to keep your breathing steady, which really helps." Michel's 23rd album *What's Up?* is available now. Find out more at michelcamilo.com.

SOUNDCLOUD

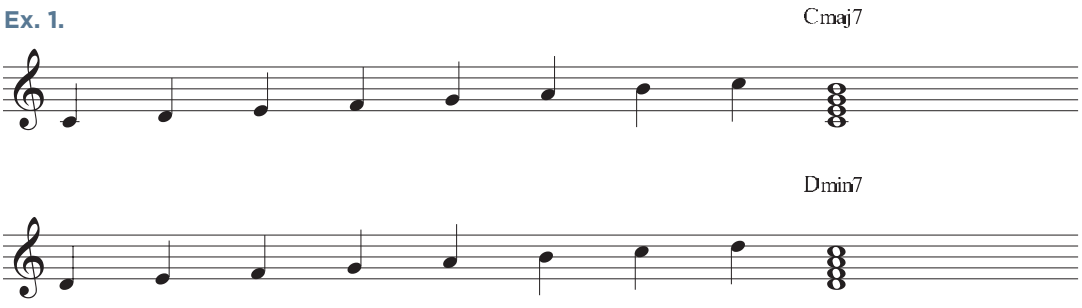
Michel Camilo plays audio examples from this lesson.

keyboardmag.com/october2013

Modal Improvisation

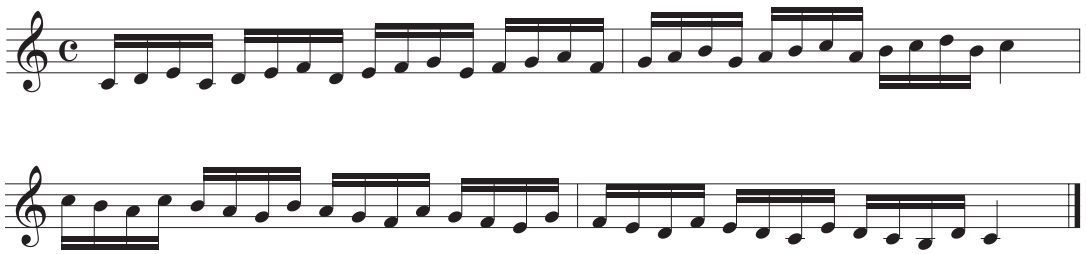
BY JEFF LORBER

APPROACHING IMPROVISATION FROM A MODAL PERSPECTIVE IS ANOTHER TOOL YOU CAN HARNESS TO HELP YOU PLAY through chord changes. In the same way that Tin Pan Alley and Broadway show tunes from the 1940s with a preponderance of *ii-V* progressions and modulations influenced the development of bebop, the more relaxed modal music of 1960s jazz brought about a new way to write melodies over chords that didn't change as often. For the most part, any jazz composition where there's a particularly *spacious* approach to chord changes—as well as songs that are very diatonic without a lot of modulations—can be approached modally. Miles Davis approached modal playing in a more "cool" and detached manner as compared to John Coltrane, who explored it with great intensity. The modal movement of the 1960s left a lasting impression that is still felt in jazz, R&B, and pop music today.

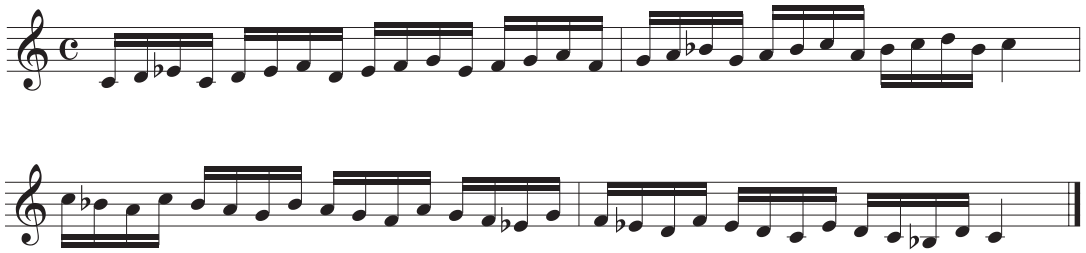
Ex. 1.

1. Modal Improv Basics

Modal improvisation involves the relationship between chords and scales. The mode that applies to the *Cmaj7* chord is a major scale, and is known as the Ionian mode. If you start a scale from *D* in the same key signature, you'll get what's known as the Dorian mode, as seen in **Ex. 1**. As you can see, the Dorian mode has a flat third and flat seventh.

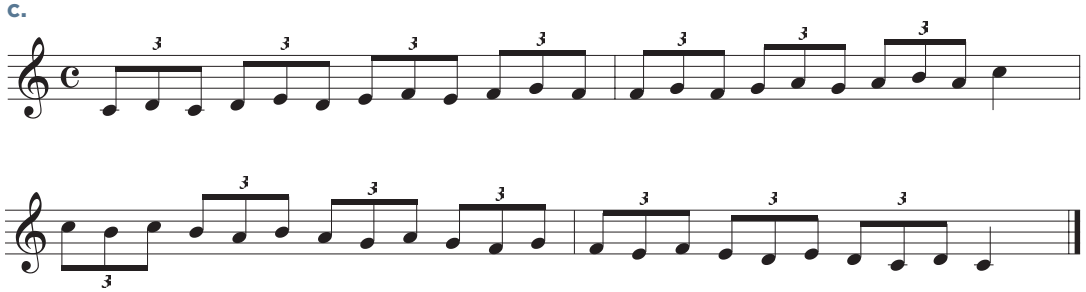
Ex. 2a.



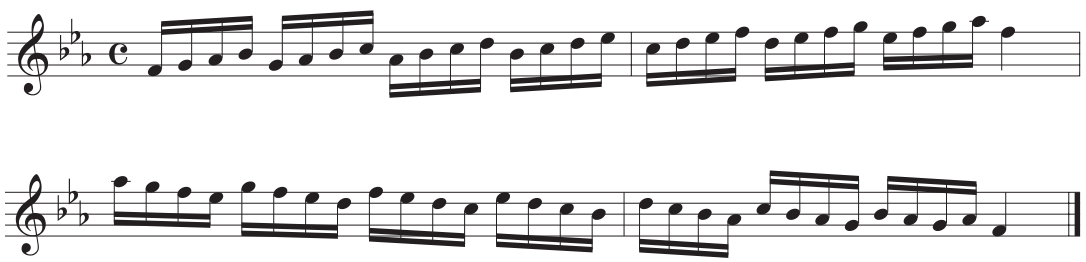
b.

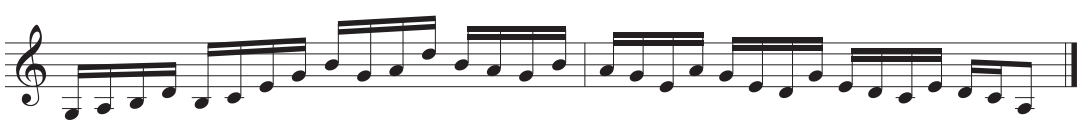
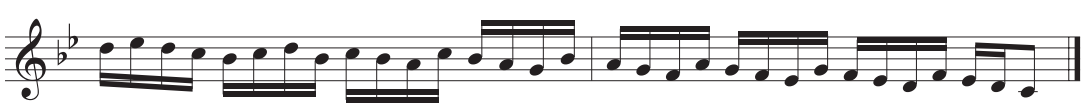


c.



d.



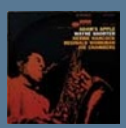
Ex. 3a.

b.

2. Modal Improv Patterns

Let's put these modes to work by building patterns to improvise with. **Ex. 2a** is a basic pattern based on the Ionian mode. **Ex. 2b** is the same pattern written out for the *C Dorian* mode, which would fit over a *Cmin7* or *Cmin9* chord. **Ex. 2c** is a very similar pattern with a different rhythmic approach. Remember that rhythm is key when it comes to the patterns you choose to play. Try this one in the Dorian mode as well. **Ex. 2d** is a similar pattern in *F* Dorian. Make sure to practice these patterns in all 12 keys.

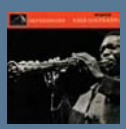
Listening List

Great Songs for Modal Practice

MILES DAVIS
"So What"



WAYNE SHORTER
"Footprints"

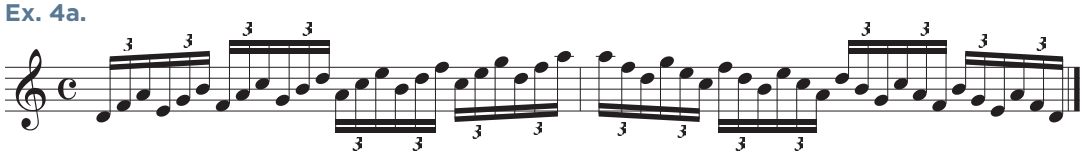


JOHN COLTRANE
"Impressions"

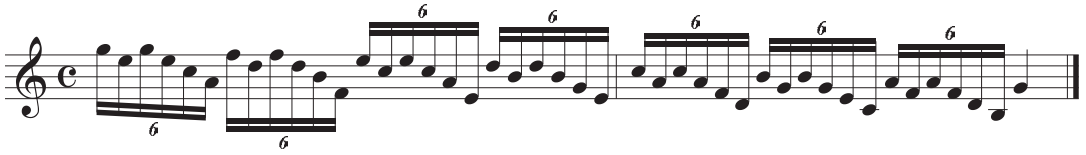
3. Melodic Modal Patterns

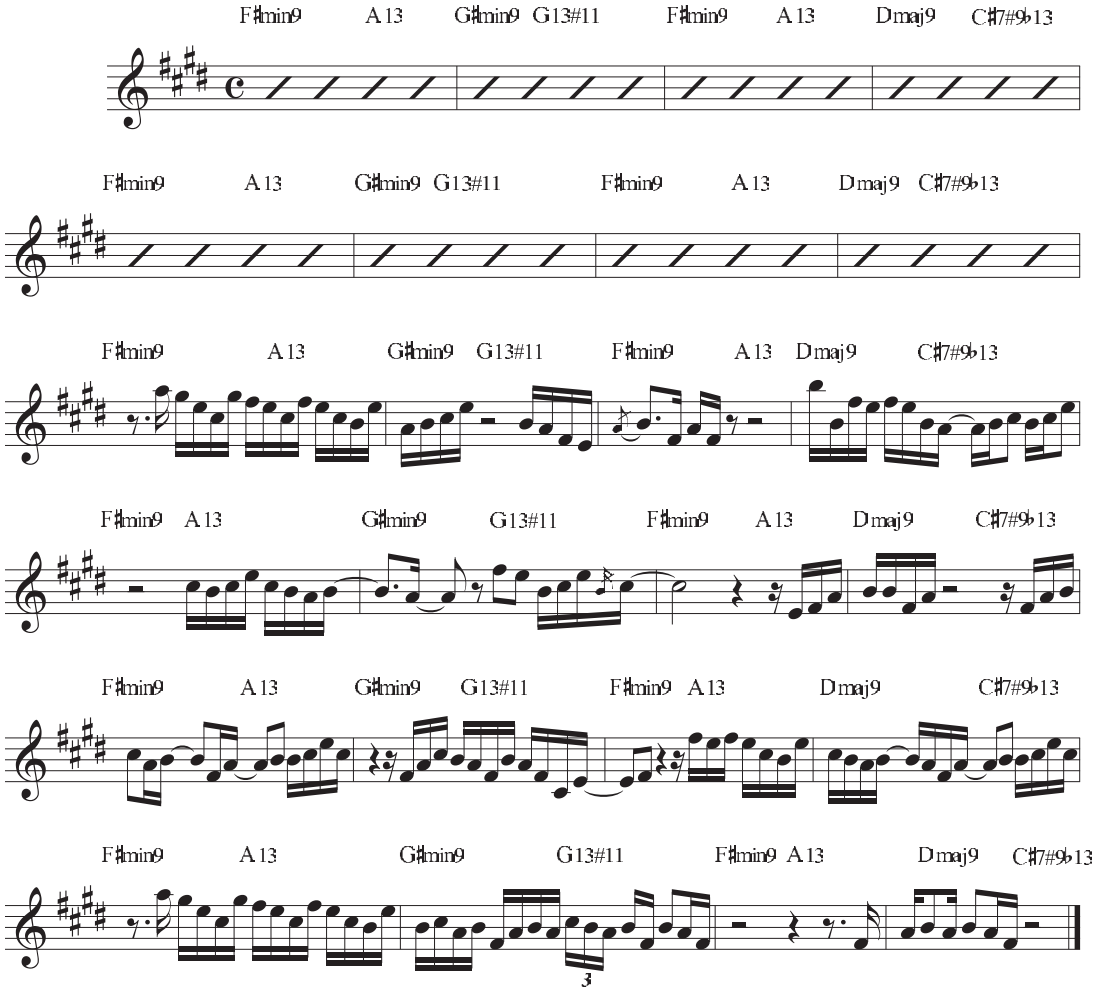
Ex. 3a is a pattern in the *C* Ionian mode that's more *melodic* and less scalar. **Ex. 3b** is a similar one in *C* Dorian.

Ex. 4a.



b.



Ex. 5.

4. Scalar Modal Patterns

Ex. 4a is a *D* Dorian *scalar* pattern in thirds that works great over a *Dmin9* chord. **Ex. 4b** is a variation of it.

5. Modes on the Move

The written-out solo in **Ex. 5** shows how modal patterns can work even in a song with a lot of changes. A modal solo works here because your ear connects the tonality of the mode with the basic *F*♯ minor tonality in that section of the song.

MARINA CHAVEZ

One, Two, Three

"Combining modal techniques with pentatonic and *ii-V-I* patterns arms you with three effective improvisational approaches that will aid in building interesting and musical solos," says acclaimed jazz-fusion keyboardist, composer, and producer **Jeff Lorber**. Jeff's latest release is *Galaxy*. Find out more at lorber.com.

SOUNDCLOUD

Play-along audio examples.

keyboardmag.com/october2013

BASS STATION II

BACK DESTROYING SUBS

In 1993 the original Bass Station found its way onto countless early dance music classics. It's now back: bigger, fatter and bassier. Bass Station II is a fully analog mono synth featuring two oscillators, a sub-oscillator, two filters, overdrive, arpeggiator, step sequencer and much much more.

The hardware has been laid out in modules with dedicated pots, switches, sliders and buttons for all major parameters. You can store and recall patches on Bass Station II. It comes with 64 killer factory presets, space for 64 of your own sounds on the hardware, and you can store more on your computer.

Bass Station II is set to blow a new generation of woofers…

novation®

www.novationmusic.com/bassstationII

Get to your local Novation dealer today and hear the Bass Station II for yourself!

Advanced technology for your MOTU Studio

Run Digital Performer 8 and MachFive 3 on the sleek MacBook Pro, record up to eight mics simultaneously with the new 8pre USB, then polish your recordings with the latest studio technology.

Apple MacBook Pro with Retina Display

The highest resolution notebook ever

A groundbreaking Retina display. All-flash architecture. The fastest mobile processors. Remarkably thin and light 13-inch and 15-inch designs. Together, these features take the notebook to a place it's never been. And they'll do the same for everything you create with it in your MOTU studio.

MOTU 8pre USB

16x12 USB interface and optical expander

The new 8pre USB provides eight mic inputs with pristine preamps, individual 48V phantom power and pad, and plenty of gain. Connect to any Mac or PC with USB, or to any digital mixer or other interface equipped with ADAT optical. Flexible combo jacks take mics, balanced line inputs and even hi-Z guitar inputs.

Novation Launchkey

Next-gen USB/iOS controller

The Launchkey 49 gives you cutting-edge control over your MOTU mobile studio with 49 smooth, synth-weighted keys, and 50 physical controls including 16 velocity-sensitive multi-color trigger pads. Produce and perform music instantly with powerful integrated free Novation apps for iPad. Launchkey is Mac, PC or iPad powered and available in 25, 49 and 61 key versions.

Value Added Reseller
Professional Audio

MOTU

Focal Spirit Professional
Closed Studio Headphones

The Spirit Professional headphones benefit from Focal's years of expertise. Focal has been designing and manufacturing speaker drivers and loudspeakers since 1979. These headphones have been designed for sound engineers and musicians. The neutrality of the sound combined with the dynamics of the transducers will enable you to work with great precision. The memory foam ear cups provide excellent insulation and outstanding comfort.

Shure Beta 181 Stereo Set
Ultra-compact side-address instrument mics

Designed for discreet placement and control in live or studio environments, the Sweetwater-exclusive Beta 181 Stereo Set includes interchangeable cardioid, supercardioid, omnidirectional, and bidirectional capsules for superior versatility. The small-diaphragm design provides superior performance in tight spaces. High SPL handling, ultra-smooth frequency response, and interchangeable polar patterns make this a must-have mic bundle. Includes two mic bodies and eight capsules in a custom case.

Mackie MRmk3 Series
Powered studio monitors

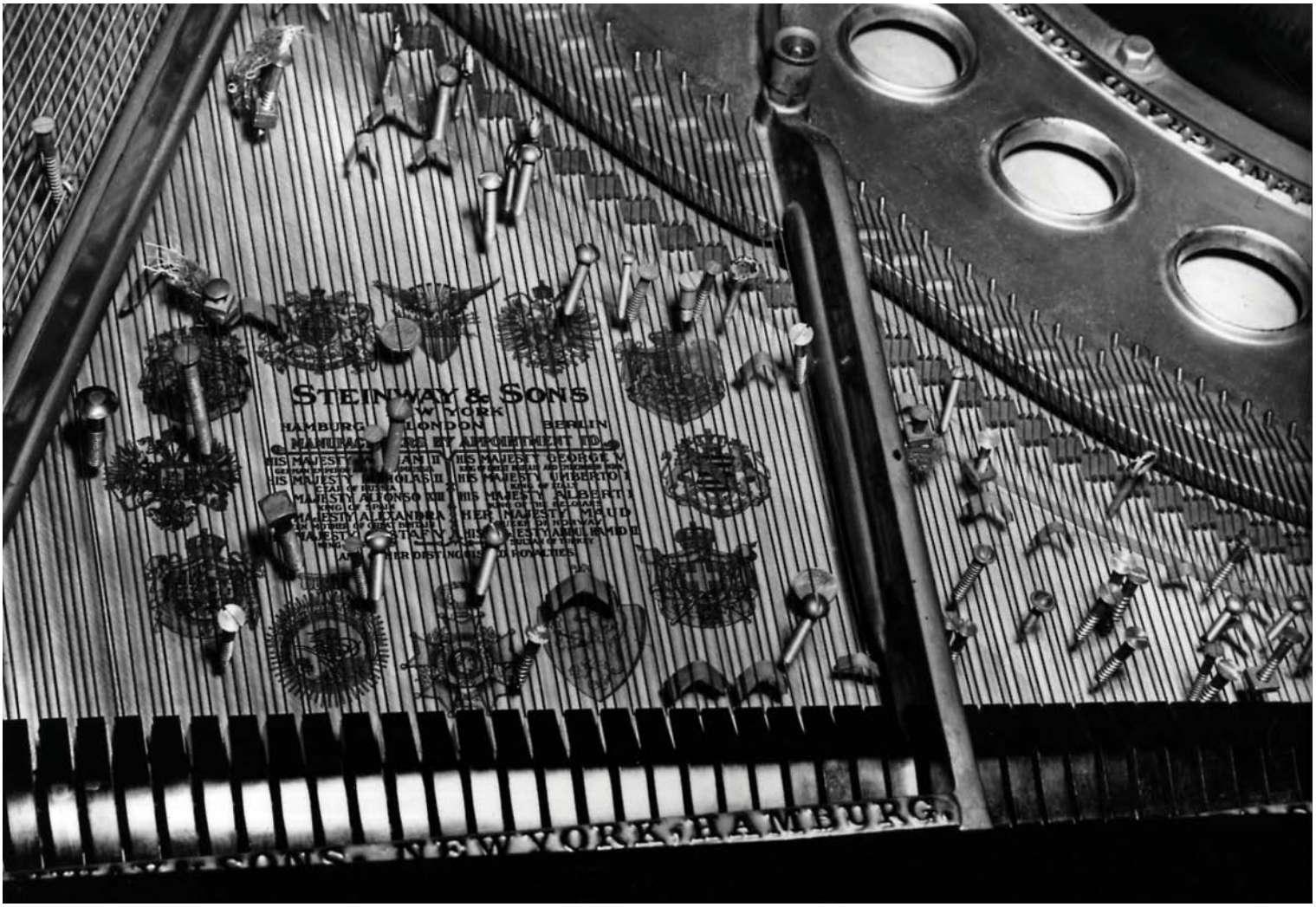
Mackie MR8mk3 Powered Studio Monitors will help you make better sounding music, with innovations like an enhanced waveguide for a wider sweet spot, custom-tuned rear porting for smooth, extended bass response, and customizable frequency controls to let you dial in the perfect response for your space. Now offered as a full-range series, choose the size that's perfect for your MOTU studio and budget: from 5", 6", or 8" full-range models, as well as a brand new, hard-hitting 10" subwoofer. The MRmk3 series are Mackie's latest assault on the state of the monitoring art.

©2013 Sweetwater, Inc.

Sweetwater®
Music Instruments & Pro Audio

(800) 222-4700
www.sweetwater.com

FedEx Ground
FREE SHIPPING
NO MINIMUM PURCHASE
ON MOST ORDERS. CONTACT US FOR MORE INFO.



Get Prepared!

UNLEASH THE HIDDEN BANK OF SOUNDS INSIDE YOUR ACOUSTIC PIANO

BY GINO ROBAIR

THERE'S A MULTITIMBRAL PERCUSSION KIT INSIDE YOUR ACOUSTIC PIANO. By placing objects on or among the strings, you can create a universe of new and useful sounds while retaining the action and dynamics of a real piano.

Background Check

Prepared piano is a simple concept that uses everyday items to quickly and safely modify the timbre of the strings. Common objects from the home and garage can do the job (see **Figure 1**).

The interior of the piano has been fair game for performers and composers since Henry Cowell pioneered the use of hands on the piano strings in pieces such as "Aeolian Harp" and "The Banshee." But it was John Cage who brought the term "prepared piano" into common usage. Cage developed the idea out of necessity: He needed to produce a variety of percussive sounds to accompany dancers when there was no room for extra musicians onstage. He settled on the idea of altering the sound of the strings by adding such objects as screws and bolts, and further refined the technique as he composed more works for the instrument.

Development of the prepared piano didn't stop

Fig. 1. Common objects that work well for preparing a piano, including screws, felt, and erasers.

Fig. 2. A dime, golf tee, and speaker wire placed between the strings in the middle of the piano. The tee is positioned between the two strings on the right so that the una corda pedal isolates the prepared sound.

with Cage. Piano interiors have been a playground for film composers for decades, and improvisers in all musical genres have been known to reach into the piano and lay a hand across the strings to get muted timbres, or touch a string lightly to get harmonics.

Handle with Care

There is only one rule for working inside the piano: Do no harm. The preparations you use should be based as much on the owner's feelings about the instrument as on what sounds you're looking for.

Some piano owners are absolutely against foreign objects, even the player's fingers, touching the strings. This is totally understandable and must be respected: A grand piano is a major investment and a precision instrument. In these cases, graciously step away from the piano.

Other piano owners may be skeptical at first, but have an open mind about using the piano interior as long as you promise not to do damage. If you keep the following guidelines in mind, you can assuage their fears. When I inquire about preparing a piano for a concert or recording, I pull out my non-metal objects first to show that some of the materials I use are no different than a piano tuner's (*e.g.*, rubber and felt inserted between the strings).

Even if your hands are clean and dry, oils from your fingers get left on the strings when you touch them. These oils attract particulates that hold moisture and eventually oxidize the metal and lead to corrosion. On a new piano where the copper-wound strings are still shiny, your fingers will leave black marks or dark lines, which cannot be safely removed. If you use clean gloves and work carefully, you can avoid skin-to-string contact. Not surprisingly, new piano strings are the most resonant when prepared. However, the majority of pianos you'll run across will not have shiny wound strings, so finger contact is less of an issue.

Technicians recommend that you protect the dampers by pressing down the sustain pedal before inserting or removing anything from between the strings. This keeps the damper's felt pads and wedges from being damaged or misshaped as you spread the strings apart with a preparation.

Take special care not to touch the moving parts of the action. If a hammer or damper gets pushed out of alignment, repairing it can be an expensive proposition.

When selecting an item for use in the piano, be sure the object's diameter is similar to the distance between the strings, so that the preparation doesn't inordinately increase the string tension. Similarly, keep the preparations away from the agraffe and bridge pins at the ends of the strings. The middle portion of a string's speaking length is the safest and easiest to prepare, though this can become an issue as the strings get shorter at the top of the instrument's range.

Never force a preparation between the strings. The safest way to insert metal objects such as bolts and screws between the strings is to turn the flat blade of a screwdriver between the strings to gently part them enough to place the preparation. Remove the preparation the same way. Rubber, felt, and wood are usually simple to insert and remove.

Be sure that your preparations, such as screws and bolts, do not scratch or gouge the soundboard. And keep them away from the area above the hammers and piano action, because occasionally items fall into the piano. Things that fall onto the soundboard can be removed by pushing them toward the lower strings with a piece of paper or card stock.

Every Piano Is Different

Pianists know that every instrument will offer surprises—and that's just from the action, tuning, and timbre. Look inside grand pianos from five different manufacturers and you'll see structural differences.

The differences you'll notice include overall string lengths, the number of strings per unison in each register, the type of strings in the lower register (copper wound or plain steel), the distance between strings, and the point where the bass strings cross over the lower midrange strings. Consequently, a specific preparation you have for a note on your personal instrument might not translate to other pianos when you travel.

For example, from one instrument to the next you will find that different areas of the lower mid-register strings cross under the bass section. When much of the string is inaccessible, certain preparations becomes difficult or impossible. Another common issue is that a screw or bolt that works well in one piano will be too narrow or wide for another because of differences in the spaces between strings. The locations of braces and cross beams within the piano can also make it difficult to place objects in specific spots.

So be ready to improvise with your preparations when you change pianos. Cage had this in mind when he wrote, in the Foreword to Richard Bunger's book, *The Well-Prepared Piano* (1981, Litoral Arts Press), "Instead of the possibility of repetition, we are faced in life with the unique qualities and characteristics of each occasion."

Surface Versus Internal Preparations

Nearly anything you can do to a guitar, bass, or violin string can be done to the strings of a piano, such as strumming, muting, bowing, or isolating a harmonic by touching the nodes on a string. Surface preparations—objects placed on the strings such as a book, a ring of keys, or a sheet of paper—are good for changing the timbre of range of notes. The objects should be heavy enough that they don't bounce out of position as you play, unless the sound of it bouncing is what you're after. For example,

lighter objects with curved bases, including cymbals and gongs, can be set into a rocking motion to create trill and glissando effects.

One of the most effective surface preparations is a magnet. If it's strong enough, it will add mass to the string and create a lower sound, similar to what an internal preparation does. However, placing and removing a magnet can be done quickly. The strength of the magnet determines where on the instrument it can be used: Because the lower strings are larger, you'll need a fairly strong magnet for this range or it will pop off when you play. Round magnets are good for covering one note, while long rectangular magnets can reach across several strings.

Another favorite surface preparation, and one that is equally easy to place, is a layer of clear packing tape across the highest notes of the instrument. The resulting sound is a high-pitched pop that works well on its own or blended with lower notes. I often place a small ball of plumber's putty on strings in the middle and upper registers to get a percussive sound with a softer attack and shortened decay.

Internal preparations are objects placed between the strings. Here, you have the opportunity to shape the unique characteristics of each note of the piano, such as its overtones and envelope. The material you choose—metal, wood, felt, paper, plastic, stone—will have a large impact on the sound you get.

Let's take three common objects to represent the different materials—a dime (metal), speaker wire (plastic), and a golf tee (wood)—and see how they affect the sound of the trichord strings. You'll get a resonant gong-like sound by weaving a dime between the three strings of Middle *C*. To insert the dime, press down the sustain pedal and tuck the dime under the middle of the three strings so that the edges of the dime sit on top of the outer two. (Be careful that the sides of the dime do not touch adjacent strings, unless you want to add some extra buzz.) The notes you'll hear in the resulting tone cluster will depend on the dime's lateral position on the string. Fine-tune the sound by sliding the dime in either direction along the string.

Note that the sound is lower in pitch than the natural note. That's because you've added mass to the string.

The speaker wire, in contrast, sounds less resonant, but still yields a rich mix of harmonics. When used in the upper register, rubber and plastic preparations offer a nice woody texture with variable decay based on their position along the string. You can get a similar effect in the low octaves by placing large rubber pencil erasers between strings. Because the bass strings are longer, you can emphasize specific harmonics and fine-tune the note's decay based on the position of the eraser.

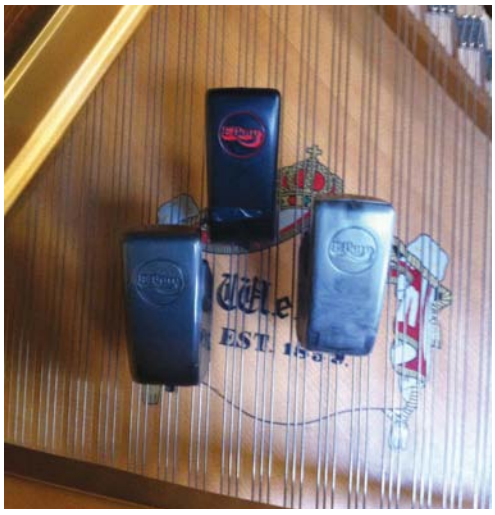


Fig. 3. Three EBows sustaining a chord.

When used with a trichord note such as Middle *C*, the golf tee adds a new dimension to our preparations because it leaves one of the strings untouched. As a result, you will hear the normal pitch mixed with the complex harmonics of the prepared strings. This is where the grand piano's *una corda*, or soft pedal, comes in.

The *una corda* shifts the entire keyboard to the right so that the hammers hit fewer strings—the middle and right strings of a three-string unison—leaving the left string to vibrate sympathetically. If you place the golf tee between the middle and right string of the trichord, then play the note while pressing down the *una corda* pedal, you will hear only the prepared note (see **Figure 2** on page 37). Release the *una corda* pedal and play the note again to sound the normal and prepared notes simultaneously. Two different timbres are available from one key. By putting a tee on either side of the middle note, you can use the *una corda* pedal to switch between two prepared sonorities.

You can tap on these preparations directly with a pencil or chopstick for a more percussive sound than you get by playing the keyboard. However, the fragility of the object you've used will determine how hard you can strike it, and the results might be quieter than if you played it from the keyboard. In a recording situation, or onstage with a miked piano, tapping on the preparations is usually loud enough to be heard clearly.

Bowing

Few sounds coming from a piano surprise an audience more than sustained ones. Although a traditional bow doesn't adapt easily to the piano, making one that does is simple.

The low-cost method is to cut a 2- to 3-foot length of monofilament fishing line and coat it with bow rosin. Often, I'll use two or three lengths of the line and tape the ends together with duct tape so that the strands don't tangle.

Rosin dust can be removed from the piano strings with a clean, dry cloth.

When your bow is ready, weave it under a piano string, press down the sustain pedal, and pull up on either end of the line while moving your hands back and forth. If you bow trichord notes, you'll mostly activate the outer strings, and the middle string vibrates sympathetically.

Another effective bowing technique is to use rosined popsicle sticks or coffee stirrers, as are found at the condiment bar of every Starbucks. Add some rosin to one end of the stick and rub it up and down against the side of a string: instant string tremolo.

Lateral bowing can be done with a small square of rubber from the inner tube of a bicycle tire. The resulting sound is made up entirely of upper partials. Wrap the piece around your index finger, hold down the sustain pedal, and drag the rubber along the length of the string.

The pianist's secret weapon is the Heet Sound EBow (ebow.com). Designed for guitarists, the EBow is a battery-powered, hand-held device that causes a metal string to vibrate (see **Figure 3**). The underside of the device has ridges that are designed to sit on the guitar strings on either side of the one you want sustained. Because the piano's strings are closer together, you'll typically excite only the middle of the three strings in the trichord.

The tone that the EBow gives you is pure, sonorous, and almost synth-like. The newest model, called the PlusEBow, has two settings, one of which causes the string to play an octave harmonic. If you press down hard enough on the EBow while playing, the piano string will vibrate against the device and create a distorted sound that is very pleasing. The best part about using an EBow in the piano is that the audience can't see what you're doing, so you'll get their attention immediately.

Always Be Prepared

These are by no means the only ways to prepare a piano, but merely a starting point for further exploration. I strongly recommend reading Bunger's *The Well-Prepared Piano* (available from richardbevans.com), which goes into great detail about material choices, hybrid preparations, and approaches to notation and performance.

Once you get started, you'll have fun experimenting with items from around the house placed inside the piano. And don't forget to record what you do: You never know when you'll find the perfect sound to add to your sample library.

Gino Robair is Technical Editor of *Electronic Musician* magazine. Special thanks to Regina Schaffer, Dave Hatt, and Christopher Johnson.

THE ART OF SYNTH SOLOING

Get the Jordan Rudess Lead Sound

BY JERRY KOVARSKY

LET'S CONTINUE SHOWING YOU HOW ARTISTS WE ALL KNOW AND LOVE use the many synthesizer soloing sounds, concepts, and techniques we've been exploring over the last 19 columns—20 counting last month's analysis of George Duke's favorite approaches. Up this month: Jordan Rudess. Jordan shared his main lead sound, programmed on a Korg Kronos. I'll break it down so the concepts are more universal, and please do check out the online audio examples, which turn the words into audible reality.

Conceptual Overview

Jordan uses a Combi (Korg-speak for a multi-program sound) to bring together his main lead sound, and a separate sound programmed to simulate the guitar feedback tones which are brought in by pushing the four-way joystick upward (away from you, called JS+Y) and downward (towards you, called JS-Y). I've taught you how you can use additional oscillators to produce these pure pitches, but by using a secondary program Jordan is able to use the oscillators in each program for some cool applications I'll go over.

Pitch-bend is set up for a whole-step up (joystick right) and a full octave going down (joystick left). There's no controller assigned to vibrato, nor to LFO-based modulation of pitch; Jordan does that by wiggling the pitch-bend direction of the joystick. He has a switch set up to transpose the sound up an octave, which he can use to play repeated note figures and toggle the octave range up and back down. The switch also toggles the octave of the feedback tones. Jordan explains how he uses these controllers in our Web video supplement to this month's column.

The Main Lead

The body of the sound is produced by the AL-1 engine in the Kronos: a virtual analog synth

Jordan Rudess explains his lead sound.

Audio examples.

keyboardmag.com/october2013

modeling engine with dual oscillators, a sub-oscillator, and a very robust complement of filter choices, complex envelopes, LFOs, and modulation capabilities. Jordan is using the effects to get the distortion/overdrive, chorus, and delay, but we'll turn those off for now so we can concentrate on the main tone. So if your synth has these basic elements (and what good synth doesn't?), you'll be able to follow along.

The two oscillators are set to sawtooth waves and are detuned +3 and –3 cents, respectively, to produce a nice slow-rolling detuned character. This is further fattened by setting the sound to unison mode, using three stacked voices with a detune of five cents—the detune is the critical parameter that fattens up the sound. The sound is set to play in mono legato mode, with last note priority so that the most recent notes played will always sound. This also means you can use all the techniques I covered in the December 2012 and January 2013 columns. [*We've re-linked those at keyboardmag.com/october2013. —Ed.*]

A sub-oscillator (an oscillator set an octave lower) is set to a square wave (the AL-1 only offers square or triangle waves for the sub-oscillator). This can easily be recreated on any synth that offers at least three oscillators if your synth lacks a dedicated sub-oscillator. It's brought into the mix using the Kronos' ribbon controller—modulating the amp volume from zero up to 99—so it can be added to a sustaining note when desired. Jordan doesn't have a way to lock the ribbon to keep the sub tone in the sound without holding the rightmost edge of the ribbon, but if you were to use a slider or knob to bring it in you could achieve that. It's all about how close you need physical controllers for other "moves" like pitch-bend and feedback. On the Kronos, Jordan can hold the sub level in place while still reaching all those controls, plus do any needed octave-switching, so he's covered.

Filters, Amp, and More

The filter is set to 24dB-per-octave lowpass mode, with the cutoff at about 75 percent and a slight resonance bump (a value of 40 out of 99). There's no filter envelope control. The amp envelope is set to sound instantly and then rapidly decay down to a middle-level sustain, producing a punchy transient to the sound. See **Figure 1** for a generic recreation of the shape. The sound also uses two special Kronos parameters: first up, a Drive stage that adds saturation and overdrive per voice, so it sounds the same regardless of polyphony. As discussed in the July 2013 column, this is a real benefit compared to using an overdrive effect. This may be recreated by any saturation stage your synth has, as discussed in the June 2013 issue. A Low Boost parameter works in conjunction with the Drive to add body to the sound by increasing low frequencies. It's a tonal shaping tool for the saturation/overdrive circuit, not a general-purpose EQ, so it's more specific to the Kronos engine.

The Effects Chain

The real distortion character is still coming from an effect, although the amp Drive parameter certainly helps. Jordan is using the "Guitar Amp Model + Cabinet" algorithm as an insert effect, set to "UK Blues." The input gain is up full, delivering as much distortion as the effect can deliver, and then blended in with the clean sound with a wet/dry mix of 68 to 32. The effect offers tone controls and he has boosted the bass at +78 and the mids at +65, with treble sitting flat, warming up and thickening the tone. He's also using the Cabinet Simulator set to "Tweed-1x12" with the virtual mic positioned rather far away to add some "air." As I discussed in the July column, the speaker simulator sucks out a lot of frequencies, which in this case adds great character to the sound.

Moving on to the master (or send) effects, he has a slowly sweeping Stereo Chorus (LFO set to 0.64Hz) with a depth of 40 (depth controls the amount of pitch variation in the effect). The chorus is set to a 50/50 wet/dry mix. The signal is then chained into a Stereo BPM Delay with the main repetitions (L) set to eighth-notes, with a medium feedback, so they repeat in a nice decaying curve. The secondary repetition (R) is set to a quarter-note, with only one hit occurring. What, no reverb? That's right. Since Jordan plays in some of the biggest halls and venues around the world, the venue is already providing plenty of general ambience to his sound.

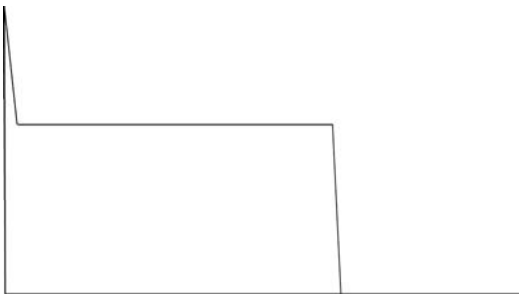
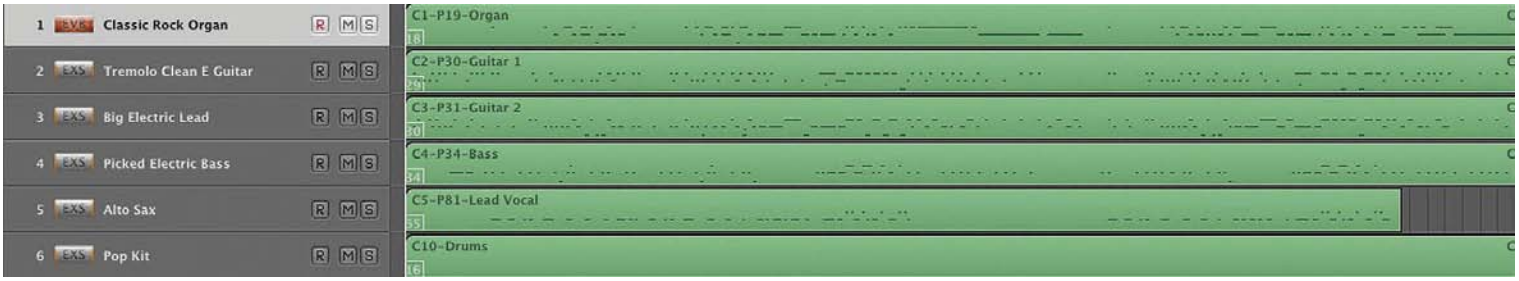


Fig. 1. The punchy amp envelope shape that's characteristic of Jordan's lead sound.

More To Come

Next month I'll cover the feedback tones and some cool extras Jordan has programmed into the sound to add variety to his performance. This sound is a perfect example of so many of the techniques we've learned in these columns, but it's still only a *sound*. When it comes under the hands of a powerful and expressive player like Jordan, it really becomes something magical. So don't think that getting the sound is the whole picture—there's plenty of practicing needed to go along with it.



Here's what a Standard MIDI File looks like when imported into Logic Pro.

Sources and Sorcery

BY MITCHELL SIGMAN

IN THE PRECEDING MONTHS WE DISCUSSED WHEN TO USE BACKING TRACKS, basic setup, and playback devices. This month we'll get into creating musical content for your tracks.

You'll need to decide whether to use pre-existing tracks, to "roll your own," or use some combination thereof. This depends on how particular you are about customizing tracks as well as your programming abilities. Here are some options:

• **Karaoke tracks.** One of the easiest solutions, karaoke tracks are cheap and easily obtainable for almost any pop song imaginable and can be converted to backing tracks by importing into a DAW, converting the stereo file to mono, panning to one channel, then syncing to a click track panned to the other channel. The downside is that karaoke tracks contain all instrumentation minus the lead vocal, so you'll be stuck with drums and other instruments. One helpful trick is use phase cancellation to reduce or eliminate hard center-panned material (typically kick, snare, and bass guitar). You can do this by using a stereo-imaging plug-in to invert the phase of one channel, then setting it to mono to sum the channels. I use Logic's Gain plug-in for this.

• **Standard MIDI Files.** As their name implies, Standard MIDI data files (SMFs) contain no audio content, just MIDI notes, and can be opened in any DAW or sequencer app, and interpreted correctly by nearly any workstation keyboard. They're readily available online and because they only contain MIDI data, file sizes are small. SMFs can be huge time savers, because you won't need to figure out notes, and by nature are easily customized (*i.e.*, muting unwanted parts, editing arrangements, and/or altering notes). Many sequencers automatically "pair" the parts with appropriate sounds from a Standard MIDI sound bank, but the quality of the sounds is often suspect—it's often worthwhile to reassign MIDI parts to higher quality virtual instruments or sample libraries. Additionally, the integrity of note transcription can vary wildly, so if it sounds wrong, it probably is. The good news is that editing or re-recording MIDI parts is easy.

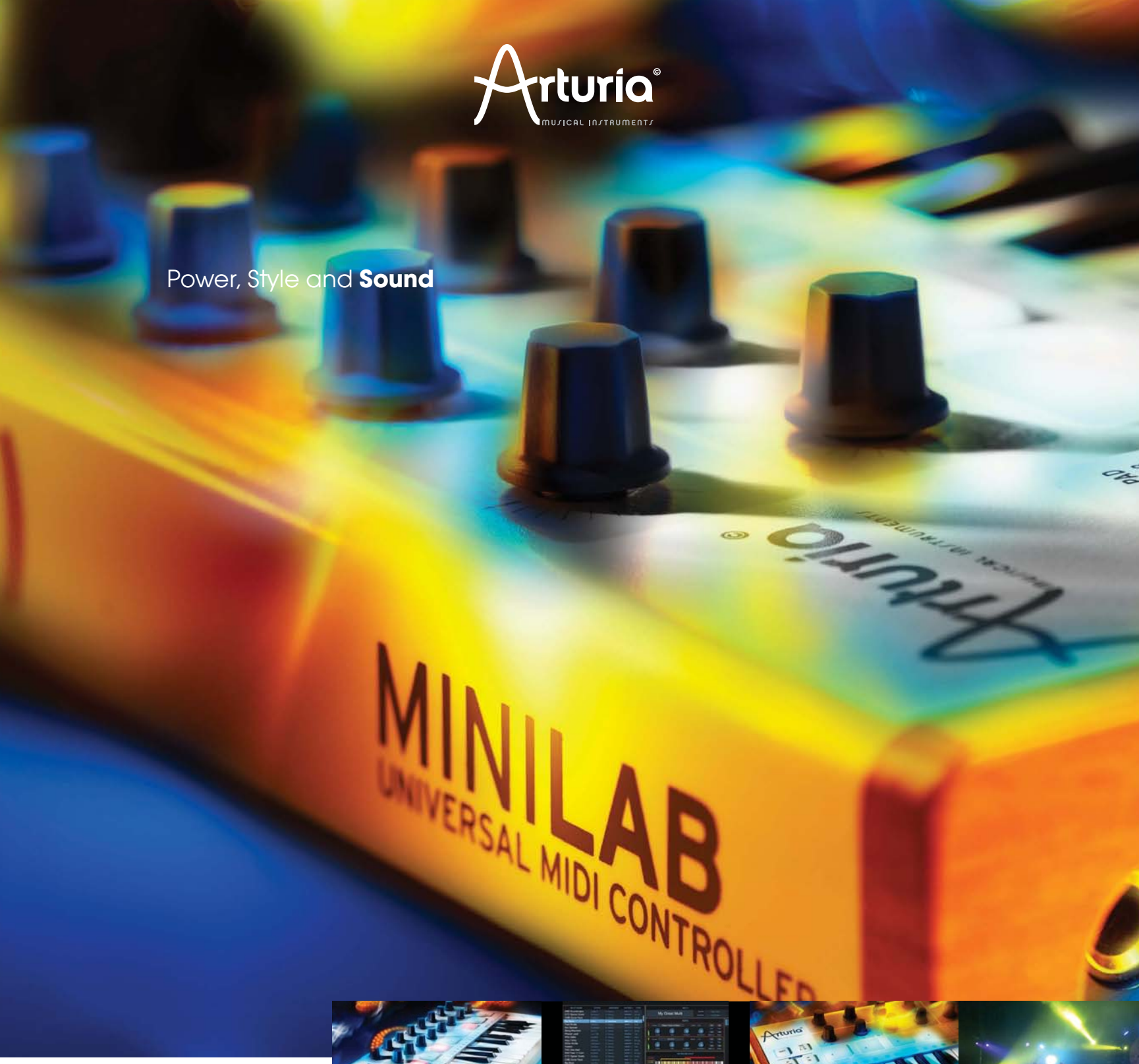
• **Custom tracks.** Creating from scratch offers the most options and potential for making things sound "just like the record." I'll typically start with a blank DAW arrange window, import the original song to a stereo track, then carefully set the start point of the original track's audio to the project's first bar, then set the tempo to lock with the original (we'll explain exactly how in an upcoming column). This makes it easier to transcribe and play in each part "on top" of the real thing. I frequently make use of aforementioned phase cancellation tricks to decipher parts more easily. In addition to Logic's Gain plug-in, Waves Center and Brainworx BX-Solo plugs are great for isolating mono and stereo content.

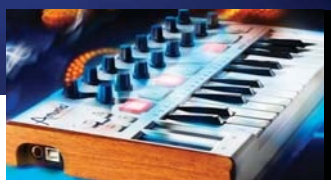
• **Original songs.** Believe it or not, there are well-known acts in my adopted hometown of Las Vegas that simply sing and play over entire pop records! Though my musician's ethic (and likely yours) would never allow that, it often makes sense to lift *parts* from existing songs, especially if you can grab isolated snippets of a loop, synth bass line, or a unique backing vocal. All you need is one isolated instance that can be copied throughout the song. Expanding on this idea, you can sometimes find instrumental or acapella mixes of songs online, though the quality can vary wildly. I've found that combining snippets of recordings with my own backing vocals and playing can be the magic bullet for realistic live performances. If you create tracks this way, you're probably cool playing your resulting rendition live, but whatever you do, don't sell a recording of it for profit.

It's typically best to choose your approach on a case-by-case basis. I recently had to create a track by a popular band with a throbbing synth bass line. I eyed my Synthesizers.com modular synth thinking how closely I could nail it—until I found an instrumental version of the original containing said bass line and not much else. I swallowed my synth nerd pride and dropped the instrumental bit into Logic. Now the track sounds *exactly* like the original when played live. ♫

Arturia
MUSICAL INSTRUMENTS

Power, Style and **Sound**





MINILAB
UNIVERSAL MIDI CONTROLLER

Arturia's brand new MiniLab Universal MIDI Controller marries the hands-on control you love with the style and portability you need to take your studio on the road.
Ultra-compact yet loaded with features, with an astonishing 5000 playable analog synth sounds included, MiniLab deserves pride of place in both the tiniest and the largest studios in the world.
All this at an incredible price you owe yourself to check!

www.arturia.com

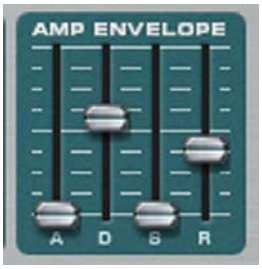
Recreating the Roland TR-808 Kick Drum

BY FRANCIS PRÈVE

LAST MONTH, I COVERED SOME TECHNIQUES FOR CREATING SYNTH TEXTURES OUT OF KICK DRUMS AND OTHER percussion instruments. This month, as a counterpoint to those tricks, we'll dive deep into synthesizing the most influential bass drum sound in the history of electronic music: the Roland TR-808 kick.

The 808 kick has enjoyed something of a renaissance in the past year or so. Artists like Disclosure have incorporated its subsonic hum into several of their bigger tracks, while labels like Claude von Stroke's Dirtybird Records have numerous releases that pivot on the bass bombast of this legendary kick.

While there are hundreds of 808 kick samples available on the Internet, the only way to have total control over its sound is to recreate it from scratch. Accordingly, we'll look at two ways to do it: via analog subtractive synthesis and via Ableton Live's FM synth, Operator.



Step 1

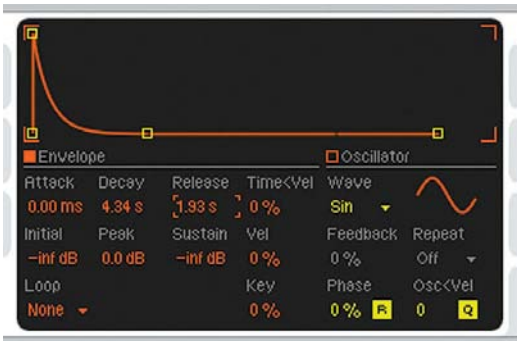
Propellerhead Reason's Subtractor does a terrific job of nailing the 808 kick, thanks to its sine wave oscillator option. The sound itself is quite simple. Just initialize the patch, then switch oscillator 1 to a sine and sculpt the 808's envelope: an immediate attack, long decay, no sustain, and longish release. Then play a low *G* on the keyboard, as that's the original pitch of the 808 kick.

Step 2

At this point, the sound should already be close to the TR-808, minus the original's trademark clicky attack. Adding the click is simple. Just apply a *very* fast pitch envelope (immediate attack, almost instant decay) via Subtractor's modulation envelope. There's the sound. Once you've got this dialed in, you can experiment with alternate waveforms and filtering. For example, swapping out the sine wave for a triangle will give you a dirtier, almost distorted character.

Step 3

Whipping up the kick on Ableton's Operator is even easier, thanks to its graphic envelopes. All you have to do here is create an Operator MIDI track, using the default Operator patch (which is just a single carrier sine wave) and adjust the envelope using the same approach from Step 1.



Step 4

Next, switch to Operator's pitch envelope and adjust its settings and amount to add the click. Once you've got the sound, Operator's FM tools can further shape the sound with a lot of subtle control. On the default patch, adjusting the level of oscillator 2 will impart more upper harmonics to the tone in a very precise manner.

SOUNDCLOUD

Step-by-step audio examples.

keyboardmag.com/october2013

A VIRTUAL INSTRUMENT UNLIKE ANY OTHER

The **Ultimate** Virtual Grand Pianos

VI LABS™

Available at
bigfishaudio.com

DAVE SMITH INSTRUMENTS
Prophet 12

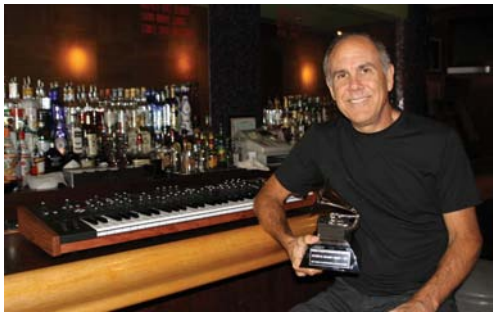
Keyboard K KEYBUY AWARD

BY FRANCIS PRÈVE

LAST SPRING, DAVE SMITH WON A GRAMMY FOR HIS TECHNICAL ACHIEVEMENTS. Aside from being the primary inventor of MIDI, Dave is the brains behind milestone technologies like the first programmable analog polyphonic synth (the Sequential Circuits Prophet-5), digital vector synthesis (the Prophet-VS), wave sequencing (the Korg Wavestation), and the first soft synth (Seer Systems Reality). With a résumé like that, what do you do for an encore? Release the Prophet 12, of course. Dave calls it the finest synth he's ever designed. After spending some quality time using it, we think he's being modest.

Overview

First off, the Prophet 12 (P12 for short from here on) is not a workstation. It's a synthesizer for players who love synthesis. While its oscillators are digital, its filters and amplifiers are analog. While some purists might pause at the oscillators not being real analog, I think they're missing out in this case. For one, the oscillators' virtual analog waveforms are rendered so smoothly that even diehards will quickly forget that they're listening to digital. Second, the P12 goes so far beyond analog capabilities that everyone will be too busy creating and playing amazing sounds.



So, a synth, its designer, and his Grammy Award walk into a bar . . .

The high-level architecture of the P12 is as follows: There are two supremely capable synths running simultaneously. You can layer them, split them, or have both play the same sound, either in monophonic unison or with 12-voice polyphony. Dual stereo outs let you process each synth differently and MIDI over USB lets the P12 quickly fit into studio rigs. There's also a plethora of performance tools like two touch-strip sliders for realtime modulation, aftertouch as well as velocity sensitivity, and a pair of arpeggiators waiting to percolate as you play. As to factory presets, there are 792 to be exact.

But other synths can say a lot of the same things, so why is the Prophet 12 so special? Because of its synthesis engine. As synthesizers go, this one is a *Pacific Rim*-sized sea monster. So let's rip it open and dive inside the innards.

Oscillators

The Prophet 12's digital oscillator section is the deepest and most flexible I've ever seen in a hardware synth. Even more impressively, its knobs are laid out in a way that makes it extremely accessible to new users. In addition to the *de rigueur* coarse and fine tuning knobs, there's a clever array of parameters that all affect the sound in dramatic ways, regardless of the selected waveform. The sonic variety available in the oscillator section alone is so broad that I got lost in it for several hours before remembering that I hadn't yet touched the analog filters.

Skating across the surface of the oscillator section, you've got 19 waveforms to choose from: four classic analog waves (sine, triangle, square, and sawtooth), 12 digital wavetable options, and three noise generators. Each waveform is affected by the Shape Mod knob in a pronounced manner. For the analog waves, this knob adjusts the duty cycle of each waveform. On a square wave, this knob adjusts the pulse width in classic fashion. On a sawtooth or triangle wave, it does a similar trick, but with vastly different sonic results. In simplest terms, the Shape Mod knob functions as a way to manipulate the structure of each waveform without getting all mathematical 'n' stuff.

The digital waveforms are a brilliant implementation of Dave Smith's revolutionary work on the Prophet-VS and the Korg Wavestation. When one of these waves is selected, the "Wave Right" and "Wave

Left" options on the P12's OLED display become active. From there, you can select two different digital waveforms. Then, using the shape mod knob, you can smoothly morph between the three waveforms' harmonic spectra, yielding thousands of waveform permutations, depending on what you've selected.

The three noise waveforms are red, white, and violet. Here the Shape Mod works a bit like an EQ, allowing you to "tilt" the frequency spectrum of each. For newcomers, red noise has emphasized lower frequencies, violet noise emphasizes highs, and the classic white noise is more balanced. In practice, the Shape Mod knob can blur those lines considerably.

Remember, we're still only talking about *one* oscillator here. There are four of these babies in the P12, plus a sine wave sub-oscillator that tracks the first oscillator. Taking everything up a notch, you can do much more than simply mix the oscillators. The P12's oscillator bank also includes FM, AM, and sync tools for *all four* oscillators.

In a manner that reminded me of Rob Papen's brilliant soft synth Blue, the P12's oscillators can do all kinds of sideband tricks that you just don't see in hardware synths. Better still, despite the underlying complexity of the technology, the default implementation is pretty straightforward once you learn the basics.

With hard sync, the oscillators are all connected to each other in a cascading manner. That is, oscillator 1 slaves to oscillator 2, oscillator 2 slaves to oscillator 3, and so on, with oscillator 4 slaving to oscillator 1. The whole concept flows like a big circle, which is why Dave designed the front panel with a big silk-screened circle around the oscillator select buttons.

Frequency Modulation and Amplitude Modulation synthesis tools are configured in a very similar manner. In both instances, the lower-numbered oscillator functions as the carrier. Again, the "circle" topography holds: Oscillator 1 is the carrier and oscillator 2 is the modulator, which is then modulated by oscillator 3, and so on. If you're familiar with FM synthesis, it's easier to think of this implementation as reminiscent of algorithm 1 on Ableton's Operator soft synth or on a Yamaha DX9. (I'd say DX7, but since the DX9 had four operators, it's the closer analogy.)

If you want to go even further down the rabbit hole, you can use the P12's modulation matrix—and we'll get to that in a bit—to alter these modulation routings in even more complex ways.

Rounding out the oscillator tools are per-oscillator glide/portamento, key follow on/off, wave resetting (so the oscillators always begin "speaking" at the same point in their wave cycles), and the clever Slop parameter, which lets you dial in analog-style pitch drift in subtle to copious amounts.

Character

The Prophet 12's innovative "Character" section further sculpts the oscillator bank's output with five unique parameters that operate on a per-voice basis before they hit the filter section. The parameters are as follows: Girth, Air, Decimation, Hack, and Drive.

The Girth and Air parameters function like a

Snap Judgment

PROS Four oscillators that include virtual analog, wavetable, FM, AM, and multiple hard sync options—plus sub-oscillator. Dual resonant lowpass and highpass analog filters. Extremely comprehensive modulation routing. Tons of realtime performance features. Dual stereo outputs. Two simultaneous synths can be layered or split. Sounds tremendous.

CONS Not everyone can afford three grand for this experience. Unlike Poly Evolver, no step sequencers onboard.

cross between shelving EQs and harmonic enhancers. In practice, these work a little bit like Aphex Aural Exciters, with extreme amounts of Air adding high-frequency sparkle. Cranking the Girth knob to max is also a bit like the Aphex "Big Bottom" feature, boosting low-end warmth in extremely musical ways. These two knobs alone will be a huge benefit for live performance, allowing keyboardists to EQ their patches before they hit the mixer.

The Decimation and Hack knobs are essentially an integrated bit-crusher, with Decimation modifying the sample rate and Hack reducing the bit depth of the oscillator output.

Finally, the Drive knob is a fantastic addition for more analog-style patches, adding overdrive and saturation enhancement to the overall tone of the oscillators. It's worth noting here that the Drive knob interacts with the oscillators' frequency modulation tools in an extremely intense manner, so if you're dabbling with FM as you work and things start to spin out of control, double-check this parameter. In many cases, a little goes a very long way.

Filters

The P12's filter bank is arranged as a resonant lowpass filter followed by a two-pole resonant highpass, which is both reminiscent of a Roland Jupiter-8 and far more flexible than a simple multi-mode affair.

The lowpass is Curtis-based, as with the Prophet '08 and the rest of the DSI product line. It can be switched between two- and four-pole modes, with four-pole mode capable of self-oscillation. The lowpass section includes all of the essential amenities for classic subtractive synthesis, including a dedicated ADSR envelope, keyboard tracking (which is fantastic when the resonance is self-oscillating), bipolar envelope amount, and a knob for controlling the amount of velocity modulation to the cutoff.

Synth geeks know that the Curtis chips deliver a super-creamy lowpass response that's almost too smooth for some users. Personally, I love the sound, and since the Prophet 12 includes so many options for sonic destruction, the smoothness here is yet another useful color in its palette. So, no complaints from this camp.

The highpass filter section is more streamlined, with three knobs for cutoff, resonance, and keyboard tracking. Again, as with almost everything on this synth, you can add an envelope via the modulation matrix if you're craving it.

A full-featured editor/librarian for the Prophet 12 is available from soundtower.com.

Amplifier

The Prophet 12's voltage-controlled amplifier section includes all the essential knobs, as well. In addition to a classic ADSR envelope, there are pots for overall envelope amount, velocity control of volume, and a Pan Spread knob that makes voices alternate between left and right in varying amounts.

The soft section of the amplifier parameters includes control over the master distortion parameter (said distortion is stereo and analog, by the way), whose knob is on the opposite side of the keyboard. It doesn't bug me that this knob is located elsewhere, though. It's just something to be aware of as you find your way around this synth.

Effects

Following the VCA section are two additional effects, each with Dave's fingerprints all over them.

The first section is dedicated to a tuned feedback effect. Fans of the DSI Poly Evolver will be happy to see its inclusion here, as it's an incredibly cool sound to apply to leads and sound effects. In fact, the Poly Evolver's tuned feedback was one of the main components of the lead sound in my track "Yin" (with Wolfgang Gartner) and tweaking the P12's feedback knob brought back lots of memories of those studio sessions.

Basically, this section takes the signal and runs it through a tuned resonator, which tracks the keyboard so its pitch follows your riffs—polyphonically, I might add. The two knobs are amount (both positive and negative) and overall tuning, so you can set it to an interval or octave of your patch's original tuning. On some sounds, it lends a Sitar-like quality. On others, it's absolute mayhem. While you may not use this effect every day, it's great to have in your bag of tricks.

After the Feedback section, there's a four-way multi-tap digital delay. This can be synced to tempo or set manually with eight-bit resolution. While I would have preferred the ability to dial in exact millisecond amounts, there's a useful reference in the manual that charts the values to their corresponding times.

There are four switches that select the delay line to be edited, and three knobs for the essential parameters: time, amount (mix), and feedback. Syncing the delays to tempo is accomplished at the OLED screen. Turning this on switches the values from zero to 255 to rhythmic note values, speeding up your composition process greatly.

Having four separate delay lines available simultaneously means that you can easily set up everything from twisting, polyrhythmic riffs to short room reverb emulations. Again, as with almost everything in the P12, the delay times can be modulated by things like envelopes and LFOs, which means that these delays can also serve as independent chorus or flange effects if you brush up on your sound design technique.

Modulation

While all of these audio parameters on their own would make for a powerful synth, the Prophet 12 is absolutely overflowing with possibilities for how these parameters interact. In fact, it's darn close to the range of amenities you'll find on a well-stocked modular synthesizer.

The P12's four LFOs rely on classic analog waveforms: triangle, up saw, down saw, square, three kinds of pulse, and random (or sample-and-hold if you're feeling hardcore). The addition of a Slew Rate parameter makes these standards far more versatile than usual.

What's slew? It's kind of like adding portamento—or a lag generator—to the LFO waveform itself. For example, a square wave with a longer slew rate will slide up and down to its peak, instead of jumping abruptly between two values. This is an especially cool parameter to use with small amounts of "random" modulation, as it can introduce minor variations much like analog voltages do.

Speaking of analog voltages, the P12's LFOs do another trick that's usually reserved for modular gear. That is, their rates extend far beyond low frequencies and well into the audio range. This extended range lets the Prophet's LFOs do some really gnarly tricks with sidebands, especially when applied to destinations like the VCA or delay times.

In addition to four LFOs, there are four envelopes. All are ADSR affairs that also include a delay time before the initial attack stage. As previously mentioned, two are dedicated to the filter and amplifier sections, respectively, but these can also be used to modulate other parameters. The other two envelopes are fair game for routing to pretty much any parameter.

Which brings us to the truly vast array of modulation destinations, which include exotic options like FM amounts, AM amounts, the aforementioned oscillator Shape Mod, delay tools, any of the character parameters, tuned feedback, and panning. Things get even more interesting—and complicated—when you throw in a bunch of even more obscure routings like modulating the attack time of a single envelope with an LFO, or the rate of an LFO with velocity.

Making matters even more blissfully complex is the fact that there are up to 16 possible modulation routings per patch (in addition to the standard fixed routings). So you can use LFOs and envelopes within a patch and then create additional performance routings for the pitch wheel, mod wheel, the two touch-strips, velocity,

Family owned & operated for almost 90 years!

THE GUARANTEED LOWEST PRICES!

the largest selection,
the most knowledgeable people,
the lowest prices,
all guaranteed!

SamAsh MUSIC DIRECT

SamAsh.com
1-800-472-6274
Real musicians are standing by 24/7

channel aftertouch, and a smattering of common MIDI continuous controller options.

Sure, Dave's previous instruments included a ton of modulation tools also, but what makes the Prophet 12's implementation so astonishing is the sheer number of audio parameters available per sound. Plus, the modulation runs at audio rates, even with respect to the analog control voltages internally. To say that these patches are dynamic and extremely playable is an understatement. In the right hands, this synth can breathe and sing and dance as a musical instrument.

The only thing that the P12 lacks compared to its forebears is a set of step sequencers, which isn't that big of an issue, considering that you could easily use MIDI over USB to recreate their functionality from your DAW or even an appropriate iOS app. In fact, I do this all the time over MIDI with my Prophet '08, using Ableton Live's clip envelopes over the internal sequencers on the Prophet '08.

Arpeggiator

Even though the Prophet 12 lacks step sequencers, it's still extremely capable in the arpeggiation department. In addition to the expected rate, note value, and octave range parameters, the arpeggiator boasts a repeat function that lets you set whether each note event plays once, twice, or up to four times per arpeggiation step. While the modes are basic—up, down, up/down, random, and assign (the order in which notes were originally played)—the fact that you can have different arpeggiator settings per layer makes the P12 capable of some serious accompaniment functions that border on algorithmic.

Conclusions

These days it's fair to divide keyboards into two broad categories: those whose primary jobs include emulating acoustic instruments (ROMplers, workstations, and stage pianos all fit in here), and those that are self-consciously electronic and well, *synthy*. Three grand may seem like a hefty price for a polysynth in the latter category, but for synthesis fanatics, the Prophet 12 is stellar investment. For starters, it has a *sound*. It can recreate almost every Prophet '08 or Mopho x4 patch with ridiculous ease, since it shares much of the same analog technology—like Curtis filters and a real VCA. Then you factor in the new oscillator bank. It's a bona fide game changer (we don't use that term unless we really mean it) that takes this synth to new levels of sound design capability.

Beyond its revolutionary sound, the P12 is a refined performance instrument. With dedicated controls for FM, AM, Shape Mod, and the whole kaboodle, it's very *playable* both onstage and in the studio. The sleek touch-strips—in addition to the standard complement of physical controllers—makes this Prophet a soloist's dream right out of the box.

If you've got the cash and really want to stand out from the pack, the Prophet 12 is your ticket. It may or may not make you a rock star, but it will make you *feel* like one from the moment you hit your first notes—and that, right there, is priceless. ♫

Bottom Line

Not only is the Prophet 12 the finest synth Dave Smith has yet designed; it's also the finest hardware synth for synth geeks currently on the market.

$3,299 list | $2,999 street
davesmithinstruments.com

SOUNDCLOUD

Original audio examples created on the Prophet 12.

keyboardmag.com/october2013

THE MIGHTY Mellotron®

– When only the real thing is good enough –

Featuring sounds of the Chamberlin®

The already classic M4000D

The M4000D has 100 classic Mellotron and Chamberlin sounds plus real wooden Mellotron keys with polyphonic aftertouch

© M Resch AB, Stockholm, Sweden

NEW: The M4000D MINI

The M4000D MINI has the same 100 sounds and main features, but has standard high quality plastic keys

Users of the M4000D include: Foo Fighters, Red Hot Chili Peppers, Smashing Pumpkins, Wilco, Incubus, QOTSA, Band of Horses, Sean Lennon, Lana del Rey, Air, Jackson Browne, Pearl Jam ....

COMING SOON: THE ORIGINAL MELLOTRON IPHONE APP

For info and orders: markus@mellotron.com Mellotron.com

Making Mellotrons since 1999
Making Mellotron parts since 1989

OMNISPHERE 1.5

- Innovative new "Orb"
- Expanded Synthesis
- Tons of New Sounds
- Omni TR - Touch Remote App

SPECTRASONICS

WWW.SPECTRASONICS.NET

ILIO

800.747.4546 www.ilio.com

27TH ANNUAL TEC WINNER

HAMMOND SK1-73

BY BRIAN HO

HAMMOND'S SK SERIES HAS SET A NEW PORTABILITY STANDARD FOR DRAWBAR organs that also function as versatile stage keyboards in virtue of having a complement of non-organ sounds that can be split and layered with the drawbar section. Where the original SK1 had 61 keys and the SK2 added a second manual, the new SK1-73 and SK1-88 aim for musicians looking for the same sonic capabilities in a single-slab form factor that's more akin to a stage piano. I got to use the 73-key model on several gigs and was very pleased with its sound and performance.

Keyboard Feel

I find that a 61-note keyboard is often too small for me to play acoustic or electric piano comfortably (especially for wide spreads between bass and treble parts) but an 88 is often a smidge too big for gigs where you're backed into a room's corner that's serving as the "stage." For such gigs, 73 keys seems to be just the right size.

The semi-weighted action on the SK1-73 is extremely playable and smooth. Since I'm primarily an organist, I find it much easier to play piano, electric piano, and Clavinet parts on a semi-weighted keyboard than I do on a weighted one—however scandalous that seems to proper pianists! There are also four velocity curves and a velocity offset parameter for additional control of non-organ sounds. The MIDI implementation of the SK series also makes it a simple matter to hook up an extra MIDI controller to devote to the non-organ "Extra Voices" or to the lower-manual organ part.

Key Features

Simply put, Hammond organists will be very happy with the SK1-73. There's little to say about its tonewheel and Leslie emulation that we haven't said in previous SK series reviews (we've reposted those at keyboardmag.com/october2013), other than that they'll stand next to anything out there and not leave you or the audience wanting for realism. A notable addition, though, is that you can now add custom tonewheel sets. That said, the stock "1960s" set had the perfect combination of grit and clarity.

The LCD shows you all the drawbar registrations either as numbers or as bar graphs. This is an omission on some competing single-manual organs—as is any sort of discreet pedal part, for that matter. Speaking of which, it's easy to add a MIDI pedalboard to the SK1-73 or 88 for kicking bass. As I play in a lot of jazz combos and organ trios where I cover bass, this is important to have. If you don't have a pedalboard, the Manual Bass button brings the pedal sound up to the lower keyboard zone. As on the original SK1, this can be polyphonic or monophonic with low-note priority. With some practice, the latter lets you get both bass and chord mileage out of your left hand.

When I first tried the original 61-key SK1 back in 2011, I wanted the organs to trigger at a higher point in the key dip. In a recent software update to the SK series, they can be set to do exactly this—while leaving the trigger point of any non-organ sounds unchanged. This goes a very long way towards getting an authentic B-3 organ playing experience out of the same instrument that you're using for pianos, EPs, Clavs, strings, and other sounds.

Even though there isn't a button that causes the entire keyboard to play only the lower organ part—useful if you want to switch between solo and comping sounds without disturbing the single set of drawbars—I found a cool workaround. Simply create a "Favorite" (Hammond's term for presets that save the entire state of the instrument) with the highest note on the keyboard as

Snap Judgment

PROS Killer tonewheel organ and Leslie speaker emulation with multitimbral upper, lower, and pedal parts. Non-organ "Extra Voices" are highly giggable. Ultra-portable. Easy to split and layer. Deep editing of tonewheel, Leslie, and effects settings.

CONS Acoustic and electric bass sounds are absent from Extra Voices. Some organ purists may dislike the non-clicky drawbars. Pitch-bend and modulation wheels would be nice to have on some of the Extra Voices.

the split point, so that hitting the Split button then toggles you between upper and lower parts.

Extra Voices

The non-organ voices on the SK series will get you through nearly any gig, with Rhodes and Wurly electric pianos, Clavs, and synth string ensembles being particular standouts. Again, for space reasons, we'll send you online for a more detailed tour in our reviews of the original SK1 and SK2. A notable exclusion is the lack of acoustic or electric bass sounds, but then, the pedal bass in the organ section is a warmer-sounding choice for most applications—and it includes a toggle for adjustable sustain.

I found that many of the Extra Voices initially played at different volumes. Since the Extra Voice section has its own volume control, and since its entry value is saved with any Favorites preset, correcting this was a simple matter of doing some re-saving.

As on previous SK models, splitting and layering the Extra Voices with the organ sound is very easy—one-touch buttons assign the Extra Voice section to either the upper or lower keyboard zone. It is worth mentioning that since you get one Extra Voice at a time, you can't do a split or layer consisting solely of Extra Voices—you get the current Extra Voice plus one organ part or the other. You can easily octave-shift either side of the split independently.

Each Extra Voices has an appropriate insert effect pre-programmed (*e.g.*, a retro-sounding phaser on some EPs), which has its own on/off button and amount knob. Press and hold the button, and up pops a menu where you can change the effect. (In fact, holding nearly any button jumps you to the most relevant page in the editing menu—a great shortcut for tweaking Leslie settings, Extra Voices, or anything else.)

On the Gig

One of my favorite gigs with the SK1-73 was at the 2013 World Baseball Classic in San Francisco. Since I had to take public transit, I knew I'd have to use the venue-supplied monitors and P.A. I grabbed the SK1-73, bungeed a stand to its case, threw my cords and expression pedal in a backpack, and jumped on the train. When I got to the gig, setting up took all of five minutes—which is about all I had between the previous band's set and mine. The organ section and onboard Leslie effect sounded fabulous through the house P.A., and I greatly enjoyed using the Clav and EP to supplement what I otherwise would've played in an organ trio. Afterwards, I was the first to be packed up gone—even before the guitar player!

Another gig called for a combination of jazz, funk, and R&B, and the band included a singer, bassist, and drummer. Normally, I'd bring a dedicated drawbar organ plus a stage piano to cover acoustic piano, EP, and Clav sounds. This time, the SK1-73 was all I needed. Organ and non-organ sounds alike cut through the mix nicely. Did I mention that in spite of its extended length, the SK1-73 weighs in at about 21 pounds? I'll be taking the train more often and putting less gig money in the gas tank!

Conclusions

While there are other "organ meets stage piano" keyboards out there, the Hammond SK1-73 more directly appeals to "organist first" musicians like myself. If you're a pianist first and need no-compromise B-3 organ sounds without carrying an extra keyboard, then the fully weighted SK1-88 is your axe—at a weight increase of only seven pounds. It also needs to be said that compared to some other keyboards that give you organs with full drawbar control and non-organ sounds at the same time (as opposed to one mode or the other), the SK1-73 and 88 are priced far lower. Whether they're organs cleverly disguised as stage pianos or vice versa, there's no question that Hammond's new SK keyboards will get you through nearly any gig without breaking your back or your bank account. ♫

Read our previous reviews of the Hammond SK1 and SK2.

keyboardmag.com/october2013

Bottom Line

A full-fledged Hammond organ experience plus the key range and sounds you'd expect from a stage piano, all in a 21-pound package? Yes, please.

$2,695 list | $2,395 street
hammondorganco.com

VI LABS
True Keys

BY VINCE ROMANELLI

NO MATTER HOW GOOD ANY SAMPLES ARE, NOTHING PLAYED THROUGH STUDIO monitors beats the experience of sitting at a concert grand. The point of virtual pianos, though, is that a lot of us don't have that option, and even if we do, we may not have the resources to tune and mike the piano for recording or performance. VI Labs enters the premium software piano market with True Keys, a suite of three sampled concert pianos aimed at duplicating those resources in a very straightforward manner. Nearly 50,000 samples were recorded for the Italian (Fazioli), American (New York Steinway), and German (Bechstein) pianos. Let's find out more.

Features and Parameters

True Keys uses the UVI engine, which is also the audio engine behind MOTU's MachFive soft sampler and numerous virtual instruments. True Keys will therefore load in MachFive as well as being its own plug-in or standalone instrument. True Keys provides a healthy selection of presets sampled from three listening perspectives—close, player, and side—and all can be loaded in either full or "lite" versions. Activation requires an Ilok 2.

Once a preset loads with its mic perspective, you can then activate and mix in others. You can also dial in sympathetic and sustain pedal resonance. Turning the resonance amount to about 6dB put a nice "harmonic glue" under the sound of all three pianos.

The volume of release sound samples is adjustable, and the *una corda* (soft) pedal even has sustain and release samples of its own. Likewise, if you play staccato at hard velocities, you'll trigger dedicated releases. True Keys also supports half-pedaling with an appropriate pedal, and you can define the MIDI CC value for the center of the half-damper range, adapting it to the springiness of your pedal and the heaviness of your foot.

The samples themselves seem to favor having less sampled-in room ambience, not more, so I often added some of the built-in reverb. This instantly brings all the pianos to life. From the early reflections of the pre-delay to the tails, the reverb sounds excellent.

Snap Judgment

PROS Giant 64GB library. Simple editing. Built-in reverb and compression. Unlooped samples for three listening perspectives, which are mixable.

CONS Large files mean longer loading time.

Mixing in some player perspective to any preset added presence without sounding harsh or shrill. The adjustable velocity curve, presented as a click-and-drag graph, is straightforward and effective. Although the arpeggiator is fun and has a lot of presets, I didn't find too much application for it in a piano context. There's also a Tone knob that, to my ears, sounds more like a high-shelf EQ than anything else.

Performance

I tested True Keys on two computers. The first was a 2009 MacBook Pro with a 5,400 rpm drive and 8GB of RAM, with the True Keys samples on the system drive and the 1/8" output connected directly to studio monitors. The second was a 2010 Mac Pro tower with a 7,200 rpm SATA drive dedicated to the samples, through a MOTU 828 Mk. 3 interface, played from the keys of a Roland FP-5. Surprisingly, True Keys performed with no audible latency or dropouts on the notebook with the buffer set as low as 256 samples. As expected, the Mac Pro system handled it perfectly down to 64 samples.

Sound Quality

With all three pianos, the relationship of harmonics to dynamics felt correct and musical from the low register to the treble. The American piano accurately captures everything you'd expect from a Steinway D, including a rich sustain with a pronounced bass. The German sounded more present and up front, and also seemed to have the most even frequency response from low to high. The Italian sounded more bright and bossy, if perhaps a little too bright relative to my experiences of real Fazioli pianos. Of the three, the German (Bechstein) had a character and presence that made it my initial favorite.

After auditioning the pianos by themselves, I mixed them into pop and jazz tracks in my DAW. In a mix is where the True Keys pianos really shine: Adjusting the three mic positions' volumes all while keeping phase-accurate sound, and being able to adjust the underlying pedal sounds, are very useful features. The American stood out beautifully in a piano-driven pop song onto which I'd also recorded real drums, bass, and guitar—I got the exact sound I was looking for. The same went for the Italian piano in a jazz mix, with seemingly just the right harmonics always popping out in response to velocity. Even so, I kept coming back to the German (Bechstein) as the piano I most enjoyed just playing.

Conclusions

True Pianos simply sounds great. Each piano sounds authentic to expectations if you're familiar with the source pianos. In particular, the German piano really captures the versatility that I love about the real Bechstein—and I'd want it on my hard drive no matter what other premium piano libraries I already owned. There are distinct sonic and layout differences between True Pianos and other such libraries, but overall, every piano is beautifully sampled—note for note, with no loops—and the underlying UVI engine implements a set of features that offers plenty of tone sculpting without having so many parameters as to be intimidating to beginners. This is important, because I found that a bit of tweaking the presets was usually the difference between good and great. ♫

Bottom Line

All of the high-quality sonic raw materials and parameters necessary to design a perfect piano sound for any musical application.

Suite of three: $349.95 direct | Individual pianos: $149.95 each
vilabsaudio.com | Dist. by bigfishaudio.com

Jaspers
KEYBOARD STANDS

BY STEPHEN FORTNER

IT'S EVERY KEYBOARD PLAYER'S DREAM: THE HARDWARE SYNTHS YOU'VE spent years acquiring all proudly displayed, plugged in, MIDI'ed up, and ready to work. They're stacked close together to evoke the cascade of manuals on a pipe organ, but with enough space that you can work the controls on every one. Arranged thusly, they become one big instrument—and you become drunk with creative power.

The Problem

Working for this magazine, I've visited a lot of studios whose owners are living that dream. Even in a lot of bona fide rock stars' setups, the weakest link often comes down to the keyboard stands. Usually, several two- or three-tier stands meant for stage use are lined up along the walls. Often, the space between the tiers is big enough to drive a Fiat 500 through, which is both inelegant to look at and less than ideal for realtime multi-keyboard performance.

Some studios use retail display systems, with horizontal slats on the walls that hold keyboard tier bars. If you rent, though, your ability to attach stuff to the walls is likely limited.

Then there's Jaspers, a German company that takes the tubular aluminum "Tinkertoys" approach to new levels of quality and flexibility. As of this writing, you order direct and pay in Euros, but

Snap Judgment

PROS Very sturdy. Easy to assemble and take down. Lightweight. Lets you place and angle keyboards exactly how you want.

CONS Models without locking flange aren't suitable for heavy keyboards that have large front-to-back depth. Euro-to-dollar factor makes for added expense.

"MY PERSONAL KEYBOARD MONITORING RIG"

—**PAUL WICKENS,**
KEYBOARDS/MUSICAL DIRECTOR, PAUL MCCARTNEY

STAGESOURCE L3t

1,400-Watt, 3-Way, All-in-One PA

"I have used the StageSource system as a PA, and currently as my personal keyboard monitoring rig on tour," says Wickens. "It sounds great, is easy to set up, and is both portable and rugged. What more could you ask?"

Keyboard players are switching to StageSource® because it sounds better than any other speaker system. Add StageSource L3s subwoofers and the StageScape® M20d digital touchscreen mixer to experience the power of the Line 6 integrated live sound ecosystem.

- **Keyboard Mode provides warm, articulate keyboard sounds**
- **Onboard 5-input digital mixer**
- **Two high-quality mic preamps**
- **12-band feedback suppression**
- **Sweeten inputs with EQ, reverb and mod FX**

LEARN MORE AT LINE6.COM/STAGESOURCE

STAGE. YOUR REVOLUTION.

LINE 6

© 2013 Line 6, Inc. Line 6, StageScape and StageSource are trademarks of Line 6, Inc. All rights reserved. *#18608*

if I were a U.S. distributor, I'd be calling them up before someone else does.

Overview

Jaspers makes many stands for stage and studio use as well as add-ons such as casters, music stands, iPad holders, monitor speaker shelves, display mounts, integrated 19" racks, and more. I tested two systems: the 6D-150, an A-frame stand with six (!) keyboard tiers, and the KR-170, a four-tier studio rack with a rectangular footprint. The three-digit numbers refer to inner widths in centimeters, with the A-frame unit also available in 120 centimeters (likely enough if all you have are 61-key instruments) and the rectangular rack in 150. I found 150 to be the "Goldilocks" size for my studio, as it accommodated any 76-key axe and many 88s.

Assembly

Ever assemble an Ikea anything? Getting the Jaspers stands together is easier. The key is to do a loose fit before tightening everything down. With both the A-frame and rectangular models, I assembled the sides first, laid one side on the floor, stuck all keyboard tiers and structural cross-tubes in it pointing at the ceiling, and then propped the other side on top of those. Next was the most fiddly step: aligning the tier tubes with their receiving hardware so that the side slides onto the tiers straight-on. I then tightened the thumb wheels partway and flipped the whole thing upright.

For the all-important cascade factor, the keyboards simply depend on the angle of the front of the A-frame stand. On the KR-170 unit, each pair of side tubes (*i.e.*, the short ones that are parallel with your keyboards' cheek blocks) is dedicated to a vertical position: The highest has the hardware into which the keyboard tier fits placed the furthest back, the next highest has it a little more towards you, and so on. During assembly, ensure that your left and right side tubes both match and are at the proper level for their tier. This is easy, as the side tubes are clearly labeled. Once you have them in place, you can tweak the front-to-back positions of the hardware by loosening it with a hex wrench. Since you'll already have installed the tier tubes per above, they'll be your reference for a straight line.

One last assembly tip: The tier tubes come with the tier bars (the things that actually touch your keyboards) pre-mounted, and underneath each you'll see a tension screw in the mounting collar. For proper balance once synths are in place, install the tiers so that those screws are on the musician side of the stand.

In Use

The bottom tier bars on the rectangular system are long enough that their rear ends sit on the rear structural cross-tube, so you have four points supporting the keyboard's weight instead of two (see **Figure 1**). I tried a Roland Jupiter-80, an 88-key Kurzweil K2600, and even my Rhodes Stage Mark II on the bottom tier, and the four-tier Jaspers unit didn't flinch.

Tiers on the four-tier rectangular unit all have flanges on either end; these lock the angle of the tier in place (see **Figure 2**). A-frame models, by contrast, depend solely on thumb wheel tension for this. For this reason, I preferred the A-frame for shallower keyboards that didn't have much rearward weight distribution, *e.g.*, Nord Electro, Hammond SK1, Korg Krome, and Roland Juno. On such instruments, I could shred on the A-frame with no bounce or unwanted keyboard movement. Deeper, fatter keyboards, though, tended to twist alarmingly backward unless I angled them sharply towards me, as shown with the Jupiter-80 and Wersi workstation below it in the photo. Proprietor Hermann Jaspers told me the locking flanges can be added to A-frame stands as an option, and they really do make all the difference.

Conclusions

For having a *lot* of keyboards ready to rock, there's simply nothing like the Jaspers stands out

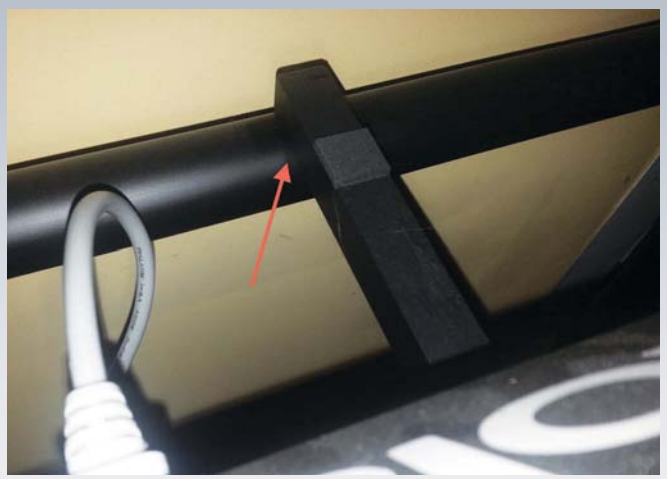


Fig. 1. On the four-tier unit, the rear of the bottom tiers rests on a structural cross-tube, providing extra support for heavy keyboards.

Fig. 2. Also on the four-tier rack, locking flanges prevent unwanted tier twisting.

there. They're sturdy and their range of adjustability lets you place and angle your synths exactly how you want. Importantly, they cascade your keyboards nicely in less waist-to-wall space than I've seen in any solution outside of a retail store. (If you really want to go nuts, check out the "music shop systems" page of their website, which details huge freestanding systems that don't require slats on the walls.) Plus, this review hasn't even scratched the surface of the customization options, *e.g.*, extra bars for putting two smaller synths on the same tier. The price of admission is decidedly non-impulse, but I found that for how they've turned my workspace into geek heaven with minimal fuss, the Jaspers stands are well worth it. ♫

Bottom Line

No other keyboard stand solution deals with such a large number of instruments this elegantly.

A-frame as tested: approx. $435 direct | Four-tier system as tested: approx. $595 direct
jaspers-alu.de

IZOTOPE Alloy 2

BY FRANCIS PRÈVE

IN THE SOFTWARE WORLD, IT'S ALL TOO EASY TO JUST SLAP ON A FEW buzzword-compliant bells and whistles and call it an upgrade. iZotope, however, is one of those companies that really listens to its users and constantly refines their products in intelligent and innovative ways. One of the most recent examples of refinement is version 2 of Alloy, their all-in-one channel strip.

I originally reviewed Alloy in 2010 (reposted at keyboardmag.com/october2013) and immediately became a fan of its integration of essential engineering tools into something that's far more than a channel strip plug-in. Alloy's combination of parametric EQ, exciter/drive, transient shaping, de-esser, limiter and not one but two multiband compressor/gates is heaven-sent for producers who need a variety of additional pro-level processing tools but don't want to break the bank acquiring them. Here are some of the new highlights that iZotope's affordably priced Swiss Army processor now offers.

Alloy 2 is now both 32-bit and 64-bit compatible, as well as compliant with Pro Tools' new AAX format. It also features a larger interface, so squinters like myself can more easily see what they're tweaking. Plus, the user interface is just more elegant overall.

The EQ now includes super-smooth Baxandall filters, an extreme sounding brick-wall filter, and a recreation of the classic Bell filter, along with a few other updated filter types. The Baxandall filters are a joy to work with for things like vocals and pads, since their gentle slopes let you subtly shape your audio in an extremely transparent manner. There's also a mode that's obviously derived from the Pultec EQ, which is another lovely addition.

I always dug the original Alloy transient-shaping tools, especially for percussion loops and plucky analog synth riffs. The update features a "fully redesigned" technology and, buzzwords aside, it really does sound sharper and thwackier—adding snap to sounds with mushy attacks.

The new exciter algorithms are extremely impressive and can now push further into overdrive territory, which makes them hyper-handy for adding grit and dirt to synth leads and, of course, TR-909-style kicks. In addition, the "warm" algorithm lives up to its name even more now. Frankly, this tool is even more dazzling if you were a fan of the original.

I've always thought that Alloy's dual multiband dynamics processors were worth the price of admission alone, so version 2's inclusion of finer control over the various crossover points and frequency response, plus a few enhancements to the sidechain tools, are welcome indeed. That said, these compressors take a little getting used to if you plan to rely on them regularly. That's not to say they sound bad in any way. It's just that there are so many options that if you're not somewhat knowledgeable about compression, you can screw things up pretty quickly. Then again, that's what presets are for and Alloy 2 comes with a great assortment of them.

Finally, Alloy's limiter still sounds great and very little was done here to tinker with the overall formula, with the exception of adding an unlink function for independent limiting of the left and right channels.

When it was first introduced, Alloy was a real value at $249. With a new list price of $199 and a ton more amenities, it's an even better choice for processing options that offer truly professional sound quality and precision, and that would cost much more if purchased as separate plug-ins from prominent competitors. ♫

Snap Judgment

PROS Top-notch collection of in-line effects for essential engineering tasks. Very CPU-friendly even when using extensive processing chains.

CONS Compressors are advanced enough to have a non-trivial learning curve.

Bottom Line

One of the best sounding, most complete, flexible, and advanced "channel strip" plug-ins on the planet.

$199 list | $149 street
izotope.com

TOOLS FOR CREATION

The Professional's Source

B&H PHOTO - VIDEO - PRO AUDIO

When it comes to the B&H sales staff, knowledge and experience are a given. We offer unparalleled expertise and solutions for the audio professional.

Visit our SuperStore in the heart of NYC, give us a call, or browse our newly expanded Web site featuring live assistance, and experience for yourself the most knowledgeable and helpful sales staff anywhere.

420 Ninth Ave, NYC
Visit Our SuperStore

800-932-4999
Speak to a Sales Associate

www.BandH.com
Shop conveniently online

NYC DCA Electronics Store Lic.#0906712; NYC DCA Electronics & Home Appliance Service Dealer Lic. #0907905; NYC DCA Secondhand Dealer – General Lic. #0907906 © 2013 B & H Foto & Electronics Corp. JN121138

ICEGEAR Xenon

BY FRANCIS PRÈVE

ALTHOUGH XENON WAS AMONG THE FIRST GROOVEBOX APPS FOR THE IPAD, its presence has been slightly overlooked by the mainstream. After all, competing with Apple GarageBand, Image-Line FL Studio Mobile, and a slew of amazing Korg apps can be a bit tough for a small company like Icegear—or maybe not, because Xenon has become one of the coolest iPad composition environments on the market.

Boasting four specialized synths, a six-voice drum machine, a straightforward mix/effects section, and comprehensive sequencing tools, Xenon is an extremely capable environment for only five bucks. And from a design standpoint, it's also an extremely attractive app, with a flat and functional interface that would make Jony Ive himself quite proud.

The synths fall into three categories: a polyphonic "hybrid" synthesizer, two virtual analog monosynths for bass and leads, and a polyphonic sample-based PCM synth that includes all the essential sampled instruments. The drum machine is also sample-based and features hundreds of really useful drum samples over a wide range of styles, along with the usual TR-808 and 909 stuff.

The hybrid synth includes options for analog waveforms, sampled waves, FM synthesis, and formant shaping tools, along with multimode resonant filtering and the essential modulation tools: dual ADSR envelopes and an LFO.

The monosynths offer only the analog waves from the hybrid synth, but include the same filtering options. The modulation tools include an extra pair of envelopes for both the oscillator pitch and the LFO depth, which is a nice touch that makes a lot of sense for this type of instrument.

The PCM synth is based on a single sampled oscillator with a huge variety of acoustic samples that are reminiscent of early '90s workstations like the M1, making it ideal for whipping up sounds that blend perfectly with the currently fashionable return to old-school house. The piano is a standout in this area, with just the right amount of cheesy bite and tight sample loops.

In terms of iOS amenities, Xenon includes a solid CoreMIDI implementation, so you can plug in your keyboard of choice as its controller. It's also fully compatible with Akai's SynthStation 25, which is a cool touch if you're using Xenon on an iPhone.

Xenon's built-in sequencer is remarkably deep. In true groovebox fashion, it's pattern-based. In practice, you create a set of individual sequences and then string them together in its song environment. For some users, this could be a tad fiddly, as you have to learn your way around Xenon's system. That said, I've seen pattern sequencers from more established developers that are far more complicated. Best of all, if you come up with something that moves you, you can export the audio directly (via a bizarre WiFi approach) or copy it to the clipboard—which makes Xenon a fairly decent team player on your iPad.

All in all, I think Xenon is wildly underrated as a musical environment for the iPad. It sounds great, it includes a ton of handy bells and whistles, and thanks to CoreMIDI, it can even be used in a live performance situation. It's definitely worth the five bucks.

Snap Judgment

PROS Beautiful interface. High-quality synth engine. Great selection of presets. Deep and flexible sequencer. CoreMIDI support. Audio export (both as wave and to clipboard). Works great even on first-generation iPad.

CONS Sequencing tools have a bit of a learning curve. Direct audio export uses fiddly WiFi method.

Bottom Line

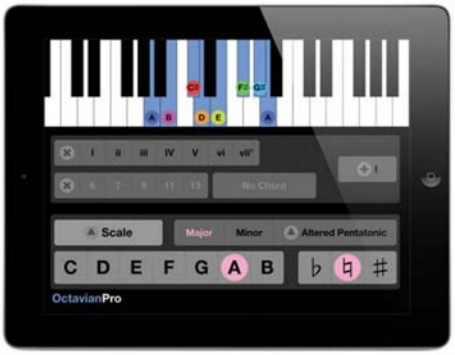
An exotic and underrated alternative to mainstream groovebox apps.

$4.99 | iphone.icegear.net

November 9th & 10th, 2013
Los Angeles, CA

ARTIST CLINICS • GEAR EXHIBITS
BOOK SIGNINGS • PERFORMANCES
LIVE CONCERT & AWARDS SHOW

BASSPLAYERLIVE.COM



Octavian Pro
By Bitnotic

Available on the iTunes App Store

Definitive music theory resource for students, teachers, songwriters, and musicians. Features 500+ scales, 50+ chords, progression sequencer, dictionary, and more. Keyboard Magazine said of Octavian 1.1.0 (Jan 2010): "It's a cheat sheet no keyboardist should leave home without." Compatible with iPad, iPhone, and iPod touch.

SRP: $2.99
www.bitnotic.com
info@bitnotic.com

Chromaphone – Creative Percussion Synth
Applied Acoustics Systems

Available Now

Chromaphone combines acoustic resonators to create drums, percussion, mallet, string, and synth-like instruments. Drum skins, bars, marimbas, plates, strings, and tubes form pairs that get sparked into life by a configurable mallet and a flexible noise source.Chromaphone's preset library includes a wide range of expressive and responsive instruments that span from warm and mellow pitched percussions for melodies to punchy one-shots and kits for rhythm tracks.

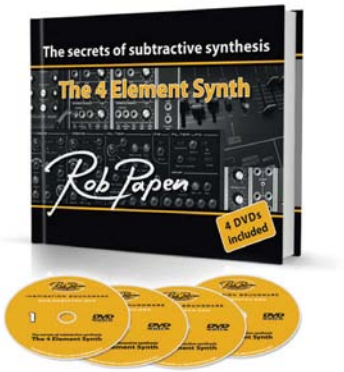
SRP: $199
www.applied-acoustics.com
888-441-8277

ATH-M50 Free with 40 Series Mic
Audio-Technica

Available Now

Free ATH-M50 headphones with purchase of one of these 40 Series microphones - AT4033/CL, AT4047/SV, AT4040MP, AT4050, AT4050ST, AT4060, AT4080 or AT4081.
For qualifying purchases July 1-December 31, 2013.
See audio-technica.com for rebate details.

MSRP/Value $199
pro@atus.com
www.audio-technica.com



The secrets of subtractive synthesis "The 4 Element Synth"

Rob Papen is a globally renowned sound designer whose sounds and virtual synthesizers are used and loved by many synthesizer players and music producers.

This 200+ page book, which is accompanied by four DVDs with over 10 hours of content, gives an in-depth insight into his approach of working with subtractive synthesis.

In 2001, Rob Papen began giving exclusive masterclasses teaching 'synthesizer sound design" in his studio. For these training sessions, Rob developed his own method to explain the secrets of subtractive synthesis, called "The 4 Element Synth".

This masterclass training is now transformed into a combined book and DVD package that also delivers numerous 'tips and tricks' which will help you to design and tweak your own sounds. Throughout the masterclass, a variety of hardware and software synthesizers are explored.

We are sure this synthesizer sound design training is an eye-opener for every synthesizer player, from novice to pro. A must have for everyone who takes his sounds seriously!

Price USD $69
www.robpapen.com
www.sweetwater.com

To advertise in this section contact: Michelle Eigen at 650-238-0325 or meigen@musicplayer.com

Classifieds

Categories

Acoustic Products & Services

Education & Tutorial

Sounds, Sequences, & Software

Studio Furniture

For Sale

Buying or selling instruments through our Classified Ads offers you convenience, a big marketplace, and a wide range of instruments and prices. However, buying mail-order does have its drawbacks, too. Keyboard Magazine suggests the following guidelines to help the buyer and the seller in these transactions: 1) Get a written description of the instrument, which should include the serial number. 2) Get front and back photos of the instrument. 3) Get a written purchase agreement, with a 24-hour approval clause allowing the buyer to return the instrument for a full refund if it does not meet his/her reasonable expectations.

Acoustic Products & Services

Acoustics First®
Toll-Free Number: **888-765-2900**
SOUND AND NOISE CONTROL MATERIALS
Web Site **www.acousticsfirst.com**

Education & Tutorial

www.usschoolofmusic.com/BigEars_KB
They laughed when I sat down to play, but then I got *perfect pitch!~... now they applaud...*
Perfect/Absolute/RelativePitch BootCamp
Intense. Personal. Hi-tech. Biofeedback. Scientific. Pedagogic. Guaranteed. Exclusive limited enrollment. A substantial strategic music and career investment.
EAR UPGRADE!

Learn jazz piano on the internet at
www.JazzPianoOnline.com

www.usschoolofmusic.com 617-666-4839
MASTERMUSICATHOME

Sounds, Sequences & Software

www.VintageKeyboardSounds.com
Authentic **MELLOTRON, B3,** and **COMBO ORGAN SAMPLES.** All Formats Supported.
562-856-9333

BAND-IN-A-BOX IMPROVEMENT PRODUCTS***
You can put a Better-Band-In-Your-Box.
Norton Music (since 1990)
www.nortonmusic.com

Studio Furniture

For Sale

www.B3GUYS.com
Hammond Organs & **Leslie** Speakers
KeyB Organ - **Trek II** Products
Sales – Service – Parts – Rentals
info@b3guys.com or 615-438-8997

AD ORDER FORM

An ad in *Keyboard* 's Classifieds reaches more than 16,900* serious musicians for only $2.40 per word plus $7.00 for an address. Minimum charge: $25.00. Please underline words to appear in bold type and add $0.50 per every bold word. Please indicate clearly any words to appear in all caps and add $0.25 per every cap word. Each phone number, e-mail address, or website address counts as one word. Call for display rates. 3 months minimum schedule required. Deadlines are the 8th of the month, 2 months prior to cover date. Businesses must list business name in ad. All ads must be received in writing, paid in full in advance. All ads must be music-related.

Retail advertisers may not list discounted prices or percentages on specific models, unless items are used or discontinued. Advertisers must provide us with complete name, street address, and phone number, whether or not included in the ad copy (you may list a PO Box address in your ad, however). Mail ads to: *Keyboard* Classifieds, Attn: Contessa Abono, 1111 Bayhill Dr., Suite 125, San Bruno, CA 94066. FAX (if paying by MasterCard, or Visa): (650) 238-0263. For more information, call Michelle Eigen at (650) 238-0325; E-mail: meigen@musicplayer.com. (*Audited circulation; does not include pass-along rate.)

Company Name_____ Contact Name_____

Address_____ City_____ State _____ Zip _____

_____

Telephone_____ E-mail_____

Please print your ad clearly. Use a separate sheet of paper if you need more room.

_____

_____

_____

_____

_____

(do not include address when counting words)

Category: ❒ Marketplace ❒ Duplication ❒ Talent and Employment ❒ Sounds/Sequences/Software ❒ Mixing/Mastering ❒ Instruments ❒ Accessories ❒ Gear for Sale ❒ Acoustic Products & Svc's ❒ Studio Furnishings ❒ Other

TO COMPUTE COST OF AD

#_____words x $2.40 = _____
#_____bold words x $ .50 = _____
#_____ ALL CAPS wds x $ .25 = _____
Address $7.00 = _____
Total cost per issue = _____
(minimum $25.00)
x number of issues to run x _____
Total payment = _____

❒ Payment enclosed, or Charge my
❒ Visa ❒ MasterCard

Card #

Expiration date:

Signed:

Kevin Antunes is musical director and keyboardist for Madonna's *MDNA* tour and mixed the show's DVD. He is also musical director for *Michael Jackson: One* by Cirque du Soleil in Las Vegas, and has been musical director for 'Nsync, Justin Timberlake, and many top pop acts.

5 THINGS I'VE LEARNED ABOUT Producing Live Concerts

BY KEVIN ANTUNES

UNDERSTANDING AN ARTIST'S MUSICAL INTENTION IS THE MOST IMPORTANT aspect of a live production. Whether you're producing music for stadiums, arenas, theaters, or television, the approach should be the same: Let the artist's creativity inspire you and always give the show's arrangements space to breathe. Most artists express their deepest thoughts and feelings through their music, so creating new live productions of their works is an incredible responsibility and honor.

1. Sound Design Is Job One

Sound design is the key to live production success. By investing hours of work recreating sounds from master recordings, or directly sampling sounds from them like kick and snare drums and other unique sound effects, the sound of an artist's original recordings can be maintained. In my world, drum sounds and synth patches have to be either exact or so close to the originals that no one can tell the difference. Paying this kind of attention to detail allows you the ability to alter or ornament an arrangement within the context of the original's intention.

2. Think Like a Film Composer

I'm a huge action movie fan and when appropriate, I'll take a cinematic approach to live music production. I often employ ominous low sustaining strings or low piano doubling bass lines, sound effects like lightning or crushed concrete to fatten up a unison band hit, reversed glass breaking effects, high to low sweeping drones, and drastic dramatic stops designed to feature a lead or background vocal. Madonna's *MDNA* tour is a perfect example of this kind of approach to live sound.

3. Combine Your Studio and Stage Setups

I've found it extremely helpful to combine my studio setup (computers) with my stage setup (hardware synths). My main software is Digital Performer running on a MacBook Pro with an internal solid-state drive and a few RME hardware interfaces. I receive master audio files, load them into DP, and edit and create from there. In the creation phase of any concert production, I can alter large multi-track sessions, create remixes, solo individual parts for musicians, score video pieces, and add new interludes or deconstruct sections of music all on the spot. This new rig sits in rehearsal looking like a studio workstation alongside a full tour keyboard setup that includes a Roland V-Synth, Fantom, and Jupiter-80, plus a Minimoog, Access Virus, and other synths. This combined approach delivers maximum sonic quality, connectivity, flexibility, and dependability.

4. Build a Better Team

Having intuitive sound engineers, a programmer with nerves of steel, and a backline crew with the music-tech version of Navy Seals skills is key to supporting a live show with a myriad of musicians and performers. From front-of-house mixers to monitor and lighting engineers, a shared knowledge of how, what, and where sound sources are created allows everyone involved to become infectiously inspired, and the technology involved to become transparent so that the audience can simply enjoy the show.

5. Work Ethic Is Everything

Work hard, work smart, and never settle. There's always room for refinement.

Kevin discusses working on Cirque du Soleil's *Michael Jackson: The Immortal* show.

keyboardmag.com/october2013

CP4 STAGE
Simply the Best

The CP4 is simply the best stage piano Yamaha has ever made. The CP4 Stage features sounds from Yamaha's Premium Collection of hand crafted grand pianos including the CFX, CFIIIs and the S6. Vintage electric pianos complete with Virtual Circuit Modeling stomp box effects and a variety of Bass, Clav, Organ, Strings and Pad sounds from our flagship Motif round out the sound set so you're ready for any musical situation. Our Graded Hammer Wooden Key action with Synthetic Ivory keys gives you the perfect piano touch and response. The CP4 Stage's slim, lightweight design (38 lbs.) combines portability with elegant style. Most importantly, an easy to understand interface with large lighted buttons for splits and layers gives you all the controls you need right at your fingertips and the easy to read, ultra-bright fluorescent display make the CP easy to use even on the darkest stage.

- 45 Premium Grand pianos including the CFX, CFIII and the S6
- 47 Vintage electric pianos (tine, reed, DX and original CP80)
- 341 Voices including Basses, Clavs, Organs, Strings and Pads based on our flagship Motif
- 62 Virtual Circuit Modeling effects, Reverb, Chorus, Master 5 band EQ and Compressor
- Easy Splits and Layers with large lighted buttons
- 88 Note Graded Hammer Wooden Key Action with Synthetic Ivory tops
- Slim, elegant lightweight (38.5 lbs.) design for portability
- FC3 foot pedal for half damper and sound board resonance included

"I can't wait to get this instrument on the stage and play live. Whether it's with The Stones or if it's with my band. I just can't wait!"

— Chuck Leavell

Visit www.4wrd.it/chuckkey
or scan this QR code to see
Chuck Leavell and the CP4 Stage

YAMAHA

©2013 Yamaha Corporation of America. All rights reserved.

MOTU
motu.com

Why is the new 8PRE USB two products in one?

It's a USB audio interface *and* an optical expander.

Introducing the...

8PRE USB

16 x 12 USB audio interface and optical expander with eight mic inputs

- **8 studio-grade mic preamps** — with pristine sound, plenty of gain, individual 48V power, and 20 dB pad.
- **USB or optical** — connects to any Mac or PC with USB, or to any digital mixer or audio interface with ADAT optical.
- **Flexible combo jacks** — connect mics, balanced line inputs, and (hi-Z) guitars.

- Individual mic gain, 48V power and pad
- 16 inputs and 12 outputs
- 96 kHz recording
- 8-channel optical, even at 96 kHz
- 16 channels of MIDI input/output
- On-board CueMix DSP mixing
- Separate control of mic gain & mix vol

- Five-segment metering for mic inputs
- On-board SMPTE generator/sync
- Across-the-board driver compatibility
- CueMix software for Mac and PC
- Tuner, oscilloscope and other tools
- AudioDesk® Workstation software
- Removable brackets for desktop use

©2013 MOTU, Inc. • 617.576.2760 • 617.576.3609 fax • www.motu.com • info@motu.com • MOTU is a registered trademark of Mark of the Unicorn, Inc. All other trademarks are the property of their respective owners.